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Education

Fall 1995 - Summer 2000 ***Ph.D., Computer Science***
Department of Computer Science, University of Maryland at College Park.

Fall 1994 - Spring 1995 ***Graduate program in Logic***,
Tver State University, Russia.

Fall 1992 - Spring 1993 ***1 year non-degree exchange program***
American Collegiate Consortium, Department of Computer Science,
University of Alabama.

Fall 1989 - Summer 1994 ***5 year degree in Applied Mathematics and Computer Science***,
Applied Mathematics and Computer Science program, Tver State University, Russia

Experience

September 2012 - present ***Professor***,
Department of Computer Science, California Polytechnic State University.

September 2007 - August 2012 ***Associate Professor***,
Department of Computer Science, California Polytechnic State University.

August 2000 - June 2007 ***Assistant Professor***,
Department of Computer Science, University of Kentucky.

Fall 1996 - Summer 2000 ***Research Assistant***,
Department of Computer Science, University of Maryland at College Park.

Summer 1997, Summer 1998, Summer 1999 ***Instructor***,
Department of Computer Science, University of Maryland at College Park.

Fall 1995 - Spring 1996, Summer 1997 ***Teaching Assistant***,
Department of Computer Science, University of Maryland at College Park.

Spring 1994 ***High School Physics Teacher***,
Tver, Russia.

Fall 1991 - Summer 1992, Fall 1993 - Summer 1994 ***Software Engineer***,
Computing Center, Tver State University, Russia.

Research Interests

⋆ Uncertainty in Databases
⋆ Data Mining
⋆ XML
⋆ Logic Programming
⋆ Algorithms and Complexity theory
⋆ Traceability in Software Engineering
⋆ Data Science Education
⋆ Uncertainty in AI
⋆ Information Retrieval
⋆ Digital Libraries
⋆ Computing in Humanties
⋆ Semistructured Databases
⋆ Bioinformatics

Refereed Publications

Book Chapters

1. Tingjian Ge, **Alex Dekhtyar**, Judy Goldsmith (2013) Uncertain Data: Representations, Query Processing, and Applications, in *Advances in Probabilistic Databases for Uncertain Information Management* 2013, Springer, pp. 67-108.

2. **Alex Dekhtyar**, Jane Hayes, (2012), Studying the Role of Humans in the Traceability Loop, in Jane Cleland-Huang (Ed.), Orlena Gotel (Ed.), Andrea Zisman (Ed.), *Software and Systems Traceability*, Springer, ISBN: 1447122380, February 2012.

3. Orlena Gotel, Jane Cleland-Huang, Jane Huffman Hayes, Andrea Zisman, Alexander Egyed, Paul Grünbacher, **Alex Dekhtyar**, Giulio Antoniol, Jonathan Maletic and Patrick Mäder, (2012), Traceability Fundamentals, in Jane Cleland-Huang (Ed.), Orlena Gotel (Ed.), Andrea Zisman (Ed.), *Software and Systems Traceability*, Springer, ISBN: 1447122380, February 2012.

4. Orlena Gotel, Jane Cleland-Huang, Jane Huffman Hayes, Andrea Zisman, Alexander Egyed, Paul Grünbacher, **Alex Dekhtyar**, Giulio Antoniol and Jonathan Maletic, (2012), The Grand Challenge of Traceability (v. 1.0.), in Jane Cleland-Huang (Ed.), Orlena Gotel (Ed.), Andrea Zisman (Ed.), *Software and Systems Traceability*, Springer, ISBN: 1447122380, February 2012.

Proceedings Edited

1. Christoph Beierle, **Alex Dekhtyar** (2015) Scalable Uncertainty Management - 9th International Conference, SUM 2015, Québec City, QC, Canada, September 16-18, 2015. Proceedings. *Lecture Notes in Computer Science* Vol 9310, Springer 2015, ISBN 978-3-319-23539-4

Publications in refereed journals

1. Meira Levy, Irit Hadar, Jennifer Horkoff, Jane Huffman Hayes, Barbara Paech, **Alex Dekhtyar**, Gunter Mussbacher, Elda Paja, Tong Li, Seok-Won Lee, Dongfeng Fang (2022) Philanthropic Conference-based Requirements Engineering in Time of Pandemic and Beyond, *Requirements Engineering*, https://doi.org/10.1007/s00766-022-00386-4.

2. Sergey Artemov, Janis Bardzins, Leo Bokut, Yuri Gurevich, **Alex Dekhtyar**, Leonid Levin, Irina Lomazova, Yuri Matiyasevich, Valery Nepomnyaschy, Sergey Novikov, Alex Rabinovich, Valery Sazonov, Ales Slissenko, Valery Sokolov, Mark Trakhtenbrodt, Nicolay Shilov, (2022), Boris Abramovich

Trakhtenbrodt (On the 100th Anniversary of His Birth), Uspekhi Matematicheskih Nauk (Russian Mathematical Surveys), Vol 77 No. 1(463), pp. 191 – 195, https://doi.org/10.4213/rm10048

3. Katelyn N. Rock, Isabelle N. Barnes, Michelle S. Deyski, Kathleen A. Glynn, Briana N. Milstead, Megan E. Rottenborn, Nathaniel S. Andre, **Alex Dekhtyar**, Olga Dekhtyar, and Emily N. Taylor (2021) Quantifying the Gender Gap in Authorship in Herpetology, *Herpetologica* Vol. 77(1), pp. 1-13, (19 March 2021). https://doi.org/10.1655/0018-0831-77.1.1

4. **Alex Dekhtyar**, Jane Huffman Hayes, Irit Hadar, Erin Combs, Alessio Ferrari, Sarah Gregory, Jennifer Horkoff, Meira Levy, Maleknaz Nayebi, Barbara Paech, Jared Payne, Matt Primrose, Paola Spoletini, Shell Clarke, Chuck Brophy, Daniel Amyot, Walid Maalej, Guenther Ruhe, Jane Cleland-Huang, Didar Zowghi (2019) Requirements Engineering (RE) for Social Good: RE Cares [Requirements]. *IEEE Software*, Vol. 36, No. 1, pp. 86-94.

5. **Alex Dekhtyar** and Andrew Schaffner (2018) Cross-Disciplinary Studies Minors as a New Vehicle to Enhance STEAM Programs, *Journal of Research in STEM Education (J-STEM)*, Vol. 4, No. 1, pp. 23–36, July 2018.

6. Jody Larsen, Jane Huffman Hayes,Yann-Gael Geuheneuc, **Alex Dekhtyar** (2018) Effective Use of Analysts' Effort in Automated Tracing. *Requirements Engineering Journal (REJ)*, Vol. 23, no. 1, pp. 119-143 DOI 10.1007/s00766-016-0260-8, pp. 1-25.

7. Michael Latner, **Alexander M. Dekhtyar**, Foaad Khosmood, Nicole Angelini, Andrew Voorhees (2017) Measuring Legislative Behavior: An Exploration of Digitaldemocracy.org. *California Journal of Politics and Policy*, Vol. 9, no. 3.

8. V. S. Subrahmanian, Amos Azaria, Skylar Durst, Vadim Kagan, Aram Galstyan, Kristina Lerman, Linhong Zhu, Emilio Ferrara, Alessandro Flammini, Filippo Menczer, Rand Waltzman, Andrew Stevens, **Alex Dekhtyar**, Shuyang Gao, Tad Hogg, Farshad Kooti, Yan Liu, Onur Varol, Prashant Shiralkar, V. G. Vinod Vydiswaran, Qiaozhu Mei, Tim Huang. (2016) The DARPA Twitter Bot Challenge. *IEEE Computer*,vol. 49, no.6 , pp. 38-46, June 2016

9. Jennifer J. VenderKelen, Ryan D. Mitchell, Andrea Laubscher, Michael W. Black, Anya L. Goodman, Aldrin K. Montana, **Alex Dekhtyar**, Rafael Jimenez-Florez, Christopher Kitts, (2016), Short Communication: Typing and tracking *Bacilaceae* in raw milk and milk powder using pyroprinting, *Journal of Dairy Science*, Vol. 99, pp. 1–6, January 2016.

10. Anya L. Goodman, **Alex Dekhtyar**, (2014) Teaching Bioinformatics in Concert, *PLOS: Computational Biology*, Vol.10, No. 11.

11. Michael W. Black, Jennifer VanderKelen, Aldrin Montana, **Alexander Dekhtyar**, Emily Neal, Anya Goodman, Christopher L. Kitts (2014) Pyroprinting: A rapid and flexible genotypic fingerprinting method for typing bacterial strains *Journal of Microbiological Methods*, Vol. 105, October 2014, pp. 121–129.

12. Elizabeth Ashlee Holbrook, Jane Huffman Hayes, **Alex Dekhtyar**, Wenbin Li, (2013) A study of methods for textual satisfaction assessment. *Empirical Software Engineering* Vol. 18, No. 1, pp. 139–176.

13. Jane Hayes, **Alex Dekhtyar**, K.S. Sundaram, (2010), Assessing Traceability of Software Engineering Artifacts, *Requirements Engineering Journal*, Vol. 15, No. 3, pp. 313–335.

14. **Alex Dekhtyar**, Judy Goldsmith, Beth Goldstein, Krol Kevin Mathias, Cynthia Isenhour, (2009), Planning for Success: the Interdisciplinary Approach to Building Bayesian Models, *International Journal of Approximate Reasoning*, vol 50, No. 3, pp. 416-428.

15. **Alex Dekhtyar**, Michael I. Dekhtyar, (2009), The Theory of Interval Probabilistic Logic Programs, *Annals of Mathematics and Artificial Intelligence*, Vol. 55 (3-4), pp. 355-388.

16. Tim Menzies, **Alex Dekhtyar**, Justin Distefano, Jeremy Greenwald, (2007), Problems with Precision: A Response to "Comments on 'Data Mining Static Code Attributes to Learn Defect Predictors'", *IEEE Transactions of Software Engineering*, Vol. 33, No. 9, pp. 637-640, September, 2007.

17. Jane Huffman Hayes, **Alex Dekhtyar**, K.S. Sundaram, Ashlee Holbrook, Sravanthi Vadlamudi and Alain April, (2007), REquirements TRacing On target (RETRO): Improving Software Maintenance through Traceability Recovery, *Innovations in Systems and Software Engineering: A NASA Journal*, Vol. 3, No. 3, September 2007, pp. 193-202.

18. Jane Huffman Hayes, **Alex Dekhtyar** and K.S. Sundaram, (2006), Advancing Candidate Link Generation For Requirements Tracing: the Study of Methods, *IEEE Transactions of Software Engineering*, Vol. 32, No 1., pp. 4-19, January, 2006.

19. **Alex Dekhtyar**, Ionut E. Iacob, Jerzy W. Jaromczyk, Kevin Kiernan, Neil Moore and Dorothy Carr Porter, (2006) Support for XML Markup of Image-based Electronic Editions, *International Journal on Digital Libraries (IJDL)*, Vol. 6, No. 1, pp. 55-69, February, 2006.

20. Jane Huffman Hayes, **Alex Dekhtyar** and K.S. Sundaram, (2005), Improving After the Fact Tracing and Mapping to Support Software Quality Predictions, *IEEE Software*, Vol. 22, No. 6 (November/December), pp. 30-37. .

21. Suresh Yadla, Jane Huffman Hayes and **Alex Dekhtyar**, (2005), Tracing Requirements to Defect Reports, *Innovations in Systems and Software Engineering: A NASA Journal.*, Vol. 1, No. 2 (September 2005), pp. 116–124.

22. Jane Huffman Hayes and **Alex Dekhtyar**, (2005), A Framework for Comparing Tracing Experiments, *International Journal on Software Engineering and Knowledge Engineering (IJSEKE)*, Vol 15, No 5 (October 2005), pp. 751–782.

23. **Alex Dekhtyar** and Ionut E. Iacob, (2005), A Framework For Management of Concurrent XML Markup, *Data and Knowledge Engineeering*, Vol. 52, No. 2, , pp. 185 - 215..

24. Wenzhong Zhao, **Alex Dekhtyar** and Judy Goldsmith, (2005), A Framework for Management of Semistructured Probabilistic Data, *Journal of Intelligent Information Systems*, Vol. 25, No. 3, pp. 293-332.

25. Kevin Kiernan, Jerzy W. Jaromczyk, **Alex Dekhtyar**, Dorothy Carr Porter, Kenneth Hawley, Sandeep Bodapati and Ionut E. Iacob, (2005), The ARCHway Project: Architecture for Research in Computing for Humanities through Research, Teaching and Learning, *Literary and Linguistic Computing*, Vol 20, Suppl 1, pp. 69–88.

26. Wenzhong Zhao, **Alex Dekhtyar** and Judy Goldsmith, (2004), Databases for Interval Probabilities, *International Journal on Intelligent Systems (IJIS)*, Volume 19, Issue 9, pp. 787-857 (September 2004).

27. **Alex Dekhtyar**, Judy Goldsmith and Janice Pearce, (2003), When Plans Distinguish Bayes Nets, *International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems (IJUFKS)*, Vol. 11supp, November 2003, pp. 1–24; in *Electronic Transactions on Artificial Intelligence (ETAI)*.

28. **Alex Dekhtyar**, Robert Ross and V.S. Subrahmanian, (2001), Probabilistic Temporal Databases I: Algebra, *ACM Transactions on Database Systems*, Vol 26, 1, pp. 41–95.

29. **Alex Dekhtyar**, V.S. Subrahmanian, (2000), Hybrid Probabilistic Programs, *Journal of Logic Programming*,Volume 43, Issue 3, pp. 187 – 250.

Refereed Publications in Conference/Workshop Proceedings

1. **Alex Dekhtyar**, Bruno da Silva, Karson Slocum (2020), Teaching Requirements Engineering for All: A Preliminary Report, in *Proceedings, RE!Next (International Conference of Requirements Engieneering) 2020*, Zurich, Switzerland, September 2020.

2. Jane Hayes, **Alex Dekhtyar**, Jared Payne, Emily Essex, Kelsey Cole, Joseph Alverson, Dongfeng Fang, Grant Bernosky (2020) Towards Improved Network Security Requirements and Policy: Domain-Specific Completeness Analysis via Topic Modeling, in *Proceedings, Seventh International Workshop on Artificial Intelligence and Requirements Engineering (AIRE'2020)*, Zurich, Switzerland, September 2020.

3. Andrew Migler, **Alex Dekhtyar**, (2020) Mapping the SQL Learning Process in Introductory Database Courses, in *Proceedings, ACM SIGCSE'2020*, Protland, OR, March 2020.

4. **Alex Dekhtyar**, Bruno da Silva, Karson Slcoum, (2020), Educating Project Stakeholders: A Preliminary Report, in *in Proceedings, 13th International Workshop on Cooperative and Human Aspects of Software Engineering (CHASE'2020)*, Seoul, Korea, July 2020.

5. **Alex Dekhtyar**, Jane Hayes, Jennifer Horkoff, Gunter Mussbacher, Irit Hadar, Meira Levy, Tingting Yu, Jared Payne, Barbara Paech, Kim Youngjoon, Jo Eunjung, Heo Seungbum (2020), From RE Cares to SE Cares: Software Engineering for Social Good, One Venue at a Time, Seoul, Korea, July 2020.

6. Jane Hayes, Meleknaz Nayebi, **Alex Dekhtyar**, Barbara Paech (2018) RE Cares'18: First RE Cares Workshop and Event: RE Cares About Giving Back to Alberta, in *Proceedings, International Requirments Engineering Confernce (RE'2018)*, Banff, Canada, August 2018.

7. **Alex Dekhtyar**, Jane Hayes (2018), Automating Requirements Traceability: Two Decades of Learning from KDD, in *Proceedings, First International Workshop on Learning From Other Disciplines for RE (D4RE)*, Banff, Canada, August 2018.

8. Jane Hayes, Jared Payne, **Alex Dekhtyar** (2018) The REquirements TRacing On target (RETRO).NET Dataset, in *Proceedings, International Requirements Engineering Confereince (RE'2018)*, Banff, Canada, August 20-24.

9. **Alex Dekhtyar**, (2018) Michael I. Dekhtyar's Contributions to the Theory of Interval Probabilistic Programs, *in Proceedings, IX Workshop on Program Semantics, Specification and Verification: Theory and Applications (PSSV'2018)*, Memorial Session in honor of B. A. Trakhtenbrodt, M. K. Valiev, and M. I. Dekhtyar, Yaroslavl, Russia, June 20-21, 2018.

10. Aditya Budhwar, Foaad Khosmood, Toshihiro Kuboi, **Alex Dekhtyar** (2018) Predicting the Vote Using Legislative Speech, in *Proceedings, 19th Annual International Conference on Digital Government Research (DG.O'2018)*, Delft, The Netherlands, May 30 - June 1, 2018.

11. Bushan Chitre, Jane Huffman Hayes, **Alex Dekhtyar** (2018) Second-Guessing in Tracing Tasks Considered Harmful?, in *Proceedings, 24th Working Conference on Requirements Engineering (REFSQ'2018)*, pp. 92-98, Utrecht, the Netherlands, March 19-22, 2018.

12. **Alex Dekhtyar**, Vivian Fong. (2017) RE Data Challenge: Requirements Identification with Word2Vec and TensorFlow, in *Proceedings, International Requirments Engineering Conference (RE'2017)*, Lisbon, Portugal, September 4-8, 2017.

13. Skylar Durst, Joshua Terrell, Vadim Kagan, Andrew Stevens, **Alex Dekhtyar**, V.S. Subrahmanian. (2016) CREATE: Clinical REcords Analysis Technologies Ensemble, in *Proc., 2016 CEGS N-GRID Shared-Tasks and Workshop on Challenges in Natural Language Processing for Clinical Data*, November 11, 2016.

14. Jeffrey D. McGovern, Eric Johnson, **Alex Dekhtyar**, Michael Black, Chris Kitts, Jennifer Vanderkelen. (2016) Library-Based Microbial Source Tracking via Strain Identification. in *Proceedings ACM International Conference on Bioinformatics and Biocomputing-2016 (ACM BCB'2016)*, pp. 364-373.

15. Jeffrey D. McGovern, **Alex Dekhtyar**, Chris Kitts, Michael Black, Jennifer VanderKelen, Anya Goodman, (2015) Leveraging the k-Nearest Neighbors Classification Algorithm for Microbial Source Tracking Using a Bacterial DNA Fingerprint Library, in *Proceedings, Workshop on Semantic Data Analytics and Bioinformatics (SDAB'2015)*, November 2015, Washington D.C.

16. Sam Blakeslee, **Alex Dekhtyar**, Foaad Khosmood, Franz Kurfess, Toshihiro Kuboi, Hans Poschman, Giovanni Prinzivalli, Christine Robertson, Skylar Durst. Digital Democracy Project: Making Government More Transparent one Video at a Time. in Proc. *Digital Humanities'2015*, Sydney, Australia. July, 2015.

17. **Alex Dekhtyar**, Andrew Schaffner, (2015), Innovative Technical Education Curriculum: Cross-Disciplinary Minor in Data Science: Structuring Data Science Education to Benefit from Existing Programs, in *Proceedings, Big Data and Analytics Education Conference (BDA EdCon)'2015*, August 2015, San Juan, Puerto Rico.

18. Aldrin Montana, **Alex Dekhtyar**, Michael Black, Chris Kitts, Anya Goodman, (2013) Ontological Hierarchical Clustering for Library-based Microbial Source Tracking, in *Proceedings, International Workshop on Incremental Clustering, Concept Drift and Novelty Detection (IClaNov'2013)*, December 2013, Dallas, TX.

19. **Alex Dekhtyar**, Michael Hilton, (2013) Human Recoverability Index: a TraceLab Experiment, in *Proceedings, 7th International Workshop on Traceability in Emerging Forms of Software Engineering (TEFSE'2013)*, May 2013, San Francisco, CA, USA.

20. **Alex Dekhtyar**, Anya L. Goodman, Aldrin Montana, (2013) Teaching Bioinformatics in Concert: an Interdisciplinary Collaborative Project-based Experience, in *Proceedings, American Society for Engineering Education Pacific Southwest Conference (ASEE-PSW'2013)*, April 2013, Riverside, CA, USA.

21. Wei-Keat Kong, Jane Huffman Hayes, **Alex Dekhtyar**, Olga Dekhtyar (2012) Process Improvement for Traceability: A Study of Human Fallibility, in *Proc. 20th IEEE International Requirements Engineering Conference (RE'2012)*, September 2012.

22. Eriq Augustine, Cailin Cushing, **Alex Dekhtyar**, Kevin McEntee, Kimberly Paterson, Matt Tognetti (2012) Outage detection via real-time social stream analysis: leveraging the power of online complaints, in *Proc. WWW'2012, Industry Track (Companion Volume)* pp. 13-22, March 2012.

23. Douglas Brandt, Aldrin Montana, Bob Somers, **Alex Dekhtyar**, Chris Lupo, Michael Black, Anya Goodman, Chris Kitts (2012), Pyroprinting Sensitivity Analysis on the GPU, poster, in *Proc. IEEE International Conference on Bioinformatics and Biomedicine (BIBM'2012)*, October 2012, Philadelphia, PA.

24. Jan Lorenz Soliman, Aldrin Montana, Kevin Webb, **Alex Dekhtyar**, Michael Black, Chris Kitts, Jennifer Vanderkellen, Emily Neal, Anya Goodman (2012) Microbial Source Tracking by Molecular Fingerprinting, poster, in *Proc. ACM Conference on Bioinformatics, Computational Biology and Biomedicine (ACM BCB'2012)*, October 2012, Orlando, FL.

25. Aldrin Montana, **Alex Dekhtyar**, Emily Neal, Chris Kitts, Michael Black, (2011), Chronology-Sensitive Hierarchical Clustering of Pyrosequenced DNA Samples of E. coli: A Case Study, in *Proc., IEEE International Conference on Bioinformatics and Biomedicine*, November 2011, Atlanta, GA.

26. **Alex Dekhtyar**, Olga Dekhtyar, Jeff Holden, Jane Hayes, David Cuddeback, Wei-Keat Kong, (2011), On Human Analyst Performance in Assisted Requirements Tracing: Statistical Analysis, in *Proc., 19th International Requirments Engineering Conference (RE'2011)*, September 2011, Trento, Italy.

27. David Cuddeback, **Alex Dekhtyar**, Jane Hayes, Jeff Holden, Wei-Keat Kong, (2011), Towards Overcoming Human Analyst Fallibility in the Requirements Tracing Process (NIER Track), in *Proceedings, Interantional Conference on Software Engineering (ICSE'2011)*, May 2011.

28. **Alex Dekhtyar**, Jane Hayes, Matt Smith, (2011), Towards a Model of Analyst Effort for Traceability Research: A Position Paper, *in Proceedings, 6th International Workshop on Traceability in Emerging Forms of Software Engineering (TEFSE'2011)*, May 2011.

29. Jane Cleland-Huang, Adam Czaudema, **Alex Dekhtyar**, Olly Gotel, Jane Hayes, Ed Keenan, Greg Leach, Jonathan Maletic, Denys Poshyvanyk, Yonghee Shin, Andrea Zisman, Giulio Antoniol, Brian Berenbach, Patrick Maeder, (2011), Grand Challenges, Benchmarks, and TraceLab: Developing Infrastructure for the Software Traceability Research Community, *in Proceedings, 6th International Workshop on Traceability in Emerging Forms of Software Engineering (TEFSE'2011)*, May 2011.

30. Wei-Keat Kong, Jane Hayes, **Alex Dekhtyar**, Jeff Holden, (2011), How Do We Trace Requirements? An Initial Study of Analyst Behavior in Trace Validation Tasks, *in Proceedings, 4th International Workshop on Cooperative and Human Aspects of Software Engineering (CHASE'2011)*, May 2011.

31. David Cuddeback, **Alex Dekhtyar**, Jane Hayes, (2010), Automated Requirements Traceability: the Study of Human Analysts, *in Proceedings, 18th International Conference on Requirements Engineering* (RE'2010), September 2010.

32. Gabriel De la Calzada, **Alex Dekhtyar**, (2010), On measuring the quality of Wikipedia articles, *in Proc. 4th. Interenational Workshop on Information Credibility on the Web* (WICOW 2010), pp. 11—18, April 2010.

33. Jane Hayes, E. Ashlee Holbrook, **Alex Dekhtyar**, (2009), Methods for Automating Requirements Satisfaction Assessment, *in Proc., International Conference on Requirements Engineering* (RE'2009), pp. 149–158, September 2009.

34. Jane Hayes, **Alex Dekhtyar**, David Janzen, (2009), Towards Traceable Test-Driven Development, in *Proc., Workshop on Traceability in Emerging Forms of Software Engineering* (TEFSE'2009), May 2009.

35. **Alex Dekhtyar**, Michael I. Dekhtyar, (2008), On the semantics of disjunctive logic programs with interval probabilities, in *Proc. Russian National AI Conference*, Dubna, Russia, September 2008, pp. 240–248. *in Russian*.

    (**Alex Dekhtyar**, Michael I. Dekhtyar. O semantike diz'yunktivnyh logicheskih programm s interval'nymi veroyatnostyami. Trudy XI Natsional'noj konferentsii po iskusstvennomu intellektu s mezhdunarodnym uchastiem, 28 Sept-3 Oct 2008, Dubna, Izdat. " LENAND", pp. 240-248)

36. Adam Dukovich, Jimmy Hua, Jong Seo Lee, Michael Huffman, **Alex Dekhtyar**, (2008), JOXM: Java Object—XML Mapping, *poster*, in *Proc. International Conference on Web Engineering (ICWE'08)*, July 2008.

37. **Alex Dekhtyar**, Jane Huffman Hayes, K.S. Sundaram, Ashlee Holbrook, Olga Dekhtyar, (2007), Technique Integration for Requirements Assessment, in *Proc. 15th IEEE International Conference on Requirements Engineering (RE-2007)*, October 2007, New Delhi, India.

38. **Alex Dekhtyar**, Jane Huffman Hayes, Jody Larsen, (2007), Make the Most of Your Time: How Should the Analyst Work with Automated Traceability Tools? *accepted*, *3d International Workshop on Predictive Modeling in Software Engineering (PROMISE'2007)*, May 20, 2007, Minneapolis, MN.

39. **Alex Dekhtyar**, Jane Huffman Hayes, Giuliano Antoniol, (2007), Benchmarks for Traceability? in *Proc., International Symposium on Grand Challenges in Traceability (GCT'07/TEFSE'07)*, March 2007, Lexington, KY.

40. Krol Kevin Mathias, Cynthia Isenhour, **Alex Dekhtyar**, Judy Goldsmith, and Beth Goldstein, (2006), When Domains Require Modeling Adaptations, *Proceedings, 4th Bayesian Modelling Applications Workshop at UAI'06*, July 2006, Boston, MA.

41. Ionut E. Iacob, **Alex Dekhtyar**, (2006), Multihierarchical XQuery for Document-Centric XML, *Proceedings, 3rd International Workshop on XQuery Implementation, Experience and Perspectives (XIME-P'06) at ACM SIGMOD'06*, June 2006, Chicago, IL.

42. **Alex Dekhtyar**, Krol Kevin Mathias, Praveen Gutti, (2006), Structured Queries for Semistructured Probabilistic Data, *Proceedings, 2nd Twente Data Management Workshop on Uncertainty in Databases (TDM'06)*, pp. 11-18, June 2006, Enschede, The Netherlands.

43. Ionut E. Iacob, **Alex Dekhtyar**, (2006), XML Views for Electronic Editions, *Proceedings, Joint Conference on Digital Libraries (JCDL'2006)*, pp. 139-140, June 2006, Chapel Hill, NC.

44. Ken McGill, Wes Deadrick, Jane Hayes, **Alex Dekhtyar**, (2006), Houston, We Have a Success Story: Technology Transfer at the NASA IV&V Facility, *Proceedings, International Workshop on Technology Transfer in Software Engineering (WOTTSE'2006) at ICSE'06*, Shaghai, China, May 2006.

45. Jane Huffman Hayes, **Alex Dekhtyar**, Ashlee Holbrook, Olga Dekhtyar and K.S. Sundaram, (2006), Will Johnny/Joanie Make a Good Software Engineer? Are Course Grades Showing the Whole Picture?, *Proceedings, 19th Conference on Software Engieering Education and Training (CSEET)*, Hawaii, April 2006.

46. Ionut E. Iacob, **Alex Dekhtyar** and Michael I. Dekhtyar, (2006), On Potential Validity of Document-Centric XML Documents, *Proceedings, International Workshop on XML Schema and Data Management (XSDM) at ICDE'06*, April 2006, Atlanta, Georgia.

47. Qing Cui and **Alex Dekhtyar**, (2005), On Improving Local Website Search Using Weblogs: A Preliminary Report, *Pcroceedings, Workshop on Web Information Management (WIDM) at ACM CIKM'05*, pp. 59–66 November 2005, Bremen, Germany.

48. Jane Huffman Hayes, **Alex Dekhtyar**, (2005), Humans in the Traceability Loop: Can't Live With'Em, Can't Live Without'Em, in *Proceedings, 3d ACM International Workshop on Traceability in Emerging Forms of Software Engineering* (TEFSE'2005), pp. 20–23, November 2005, Long Beach, CA.

49. **Alex Dekhtyar** and Michael I. Dekhtyar, (2005), Revisiting the Semantics of Interval Probabilistic Logic Programs, in *Proceedings, Eighth International Conference on Logic Programming and Non-Monotonic Reasoning, LPNMR'05*, LNAI, Vol. 3662, pp. 330-342, September 2005, Diamante, Italy.

50. **Alex Dekhtyar**, Ionut E. Iacob and Srikanth Methuku, (2005), Searching Multi-Hierarchical XML Documents: the Case of Fragmentation, *16th International Conference on Database and Expert Systems Applications, DEXA'05*, LNCS, Vol. 3588, pp. 576-585, August 2005, Copenhahen, Denmark.

51. Derek Williams, Kyle Bailey, **Alex Dekhtyar**, Judy Goldsmith, Beth Goldstein, Raphael Finkel and Joan Mazur, (2005), Interactive preferences and decision-theoretic planning, *Proceedings, Multidisciplinary Workshop on Advances in Preference Handling at IJCAI'05*, pp. 192 – 203 July 2005, Edinburgh, UK.

52. Ionut E. Iacob and **Alex Dekhtyar**, (2005), Towards a Query Language for Multihierarchical XML: Revisiting XPath, in *Proceedings, International Workshop on the Web and Databases, (WebDB'05) at ACM SIGMOD'05*, pp. 43–48, June 2005, Baltimore, MD.

53. Ionut E. Iacob and **Alex Dekhtyar**, (2005), xTagger: a New Approach to Authoring Document-centric XML, (2005), in *Proc. 5th Joint Conference on Digital Libraries (JCDL'05)*, pp. 42-43.

54. Ionut E. Iacob and **Alex Dekhtyar**, (2005), Concurrent Markup Hierarchies: a Computer Science Approach, in *Proceedigns, International ACH-ALLC-2005 Conference*, pp 86-88, June 2005, Victoria, Canada.

55. Ionut E. Iacob and **Alex Dekhtyar**, (2005), Building Tools for Image-Based Electronic Editions, session paper, part of Kevin Kiernan, Dorothy Carr Porter, **Alex Dekhtyar**, Ionut E. Iacob, Jerzy W. Jaromczyk and Neil Moore, The Edition Production Technology (EPT) and the ARCHway and Electronic Boethius Projects, session, in *Proceedings, International ACH-ALLC-2005 Conference*, pp. 107-113, June 2005, Victoria, Canada.

56. Jane Huffman Hayes, **Alex Dekhtyar** and K.S. Sundaram, (2005), Text Mining for Software Engineering: How Analyst Feedback Impacts Final Results, in *Proceedings MSR'2005: Second International Workshop on Mining Software Repositories at ICSE'05*, pp. 58-62, May 2005, St. Louis, MO.

57. Jane Huffman Hayes, **Alex Dekhtyar** and K.S. Sundaram, (2005), Baselines in Requirements Tracing, (2005), in *Proceedings, PROMISE'2005: International Workshop on Predictor Models in Software Engineering at ICSE'05*, May 2005, St. Louis, MO.

58. Ionut E. Iacob, **Alex Dekhtyar** and Kazuyo Kaneko, (2004), Parsing Concurrent XML, in *Proceedings, Workshop on Web Information Management (WIDM'04) at ACM CIKM'04*, pp. 23–30, November 2004, Washington DC.

59. Ionut E. Iacob, **Alex Dekhtyar** and Michael I. Dekhtyar, (2004), Checking Potential Validity of XML Documents, in *Proceedings, 7th International Workshop on the Web and Databases (WebDB-2004) at ACM SIGMOD'04*, pp. 91 - 96.

60. **Alex Dekhtyar** and Michael I. Dekhtyar, (2004), Possible Worlds Semantics for Probabilistic Logic Programs, in *Proceedings, International Conference on Logic Programming (ICLP'2004)*, pp. 137–148, St. Malo, France, September 2004.

61. **Alex Dekhtyar** and Michael I. Dekhtyar, (2004), On Semantics of Simple Logic Programs with Interval Probabilities, (2004), (In Russian), in *Proceedings, 9th National Conference on Artificial Intelligence (KII-2004)*, Vol. 1, pp. 254 - 262, Fizmatlit, October 2004, Tver, Russia.

62. Jane Huffman Hayes, **Alex Dekhtyar**, K.S. Sundaram and Sarah Howard, (2004), Helping Analysts Trace Requirements: An Objective Look, in *Proceedings, International Requirements Engineering Conference (RE'2004)*, pp. 249-261, September 2004, Kyoto, Japan.

63. **Alex Dekhtyar**, Ionut E. Iacob, J.W. Jaromczyk, Neil Moore and Dorothy Carr Porter, (2004), Database Support for Image-based Electronic Editions, in *Proceedings, Workshop on Multimedia Information Systems (MIS'2004)*, August 2004, College Park, MD.

64. **Alex Dekhtyar**, Jane Huffman Hayes and Tim Menzies, (2004), Text is Software, Too, in *Proceedings, MSR 2004: International Workshop on Mining Software Repositories at ICSE'04*, pp. 22-26, May 2004, Edinburgh, Scotland.

65. Ionut E. Iacob and **Alex Dekhtyar**, (2003), A Framework for Management of Concurrent XML Markup, in *Proceedings, 1st Workshop on XML Data and Schemas (XSDM'2003)*, in *M.J. Jeusfeld, O. Pastor (Eds.), Proc. Conceptual Modeling for Novel Application Domains*, LNCS, Vol. 2814, pp. 311–322, October 2003, Chicago, IL.

66. Wenzhong Zhao, **Alex Dekhtyar** and Judy Goldsmith, (2003), Query Algebra Operations for Interval Probabilities, (2003), in *Proceedings, Intl. Conference on Database and Expert Systems Applications (DEXA 2003)*, pp. 527–536, August 2003, Prague, Czech Republic.

67. Jane Huffman Hayes, **Alex Dekhtyar** and James Osborne, (2003), Improving Requirements Tracing via Information Retrieval, in *Proceedings, Intl. Requirements Engineering Conference (RE'2003)*, pp.151–161, September 2003, Monterey, CA.

68. Judy Goldsmith, **Alex Dekhtyar** and Wenzhong Zhao, (2003), Can Probabilistic Databases Help Elect Qualified Officials?, in *Proceedings, 2003 Florida Atlantic AI Symposium (FLAIRS'2003)*, pp. 501–505, May 2003, St. Augustine, FL.

69. **Alex Dekhtyar** and Ionut E. Iacob, (2003), Management of Data For Building Electronic Editions of Historic Manuscripts, session paper in *Proceedings, International ACH-ALLC-2003 Conference*, pp. 11–13, May 2003, Athens, GA.

70. James Royalty, Robert Holland, Judy Goldsmith and **Alex Dekhtyar**, (2002), POET: The On-line Preference Elicitation Tool, in *Proceedings, AAAI Workshop on Preferences in AI and CP: Symbolic Approaches*, pp. 80-86, August, 2002, Edmonton, Canada.

71. **Alex Dekhtyar** and Judy Goldsmith, (2002), Conditionalization of Interval Probabilities, in *Proceedings, Workshop on Conditionals, Information, and Inference,*, pp. 195-209, May 2002, Hagen, Germany.

72. **Alex Dekhtyar**, Judy Goldsmith and Janice Pearce, (2001), *When Plans Distinguish Bayes Nets*, in *Proceedings, Workshop on Uncertainty in AI, KI-2001*, pp. 21–36, September 2001, Vienna, Austria.

73. **Alex Dekhtyar**, Judy Goldsmith and Sean Hawkes, (2001) Semistructured Probabilistic Databases (2001), in *Proceedings, Conference on Statistical and Scientific Database Management Systems (SSDBM 2001)*, pp. 36–45, July 2001, Fairfax, VA.

74. **Alex Dekhtyar**, M.I. Dekhtyar and V.S. Subrahmanian, (1999), Temporal Probabilistic Logic Programs in *Proceedings, International Conference on Logic Programming (ICLP'99)*, pp. 109–123, December 1999, Las Cruces, NM.

75. M.I. Dekhtyar, **Alex Dekhtyar** and V.S. Subrahmanian, (1999), Hybrid Probabilistic Programs: Algorithms and Complexity, in *Proceedings of Conference on Uncertainty in Artificial Intelligence (UAI'99)*, pp. 160–169, July 1999, Stockholm, Sweden.

76. **Alex Dekhtyar** and V.S. Subrahmanian,(1997), Hybrid Probabilistic Programs, in *Proceedings, International Conference on Logic Programming (ICLP'97) (ed. L. Naish)*, MIT Press, pp. 391–405, July 1997, Leuven, Belgium.

77. **Alexander M. Dekhtyar**, (1994), A Multiplicative Linear Logic for Resource Transformation Nets, in *Proceedings, International Conference on Logic Foundations of Computer Science (LFCS'94)* (ed. A. Nerode, E. Dantsin), LNCS, Vol. 620, pp. 81–88.

Refereed Demos

1. Ed Keenan, Adam Czauderna, Greg Leach, Jane Cleland-Huang, Yonghee Shin, Evan Moritz, Malcom Gethers, Denys Poshyvanyk, Jonathan I. Maletic, Jane Huffman Hayes, **Alex Dekhtyar**, Daria Manukian, Shervin Hossein, Derek Hearn (2012), TraceLab: An experimental workbench for equipping researchers to innovate, synthesize, and comparatively evaluate traceability solutions, demo, in *Procedings, International Conference on Software Engineering (ICSE'2012)*, pp. 1375-1378, May 2012.

2. Krol Kevin Mathias, Casey Lengacher, Derek Williams, Austin Cornett, **Alex Dekhtyar**, Judy Goldsmith, (2006), Factored MDP Elicitation and Plan Display, demo *Proceedings, The Twenty-First National Conference on Artificial Intelligence (AAAI-06)*, July 2006, Boston, MA.

3. Ionut E. Iacob, **Alex Dekhtyar**, Dorothy Carr Porter, Kevin Kiernan, (2006) Extended XQuery for Digital Libraries, software demo, *Proceedings, Joint Conference on Digital Libraries (JCDL'2006)*, p. 378, June 2006, Chapel Hill, NC.

4. Ionut E. Iacob and **Alex Dekhtyar**, (2005), A Framework for Processing Complex Document-centric XML with Overlapping Structures, demo, in *Proceedings, ACM SIGMOD Conference*, pp. 897–899, June 2005, Baltimore, MD.

5. Ionut E. Iacob and **Alex Dekhtyar**, (2005), Processing XML documents with Overlapping Hierarchies, demo, in *Proceedings, 5th Joint Conference on Digital Libraries (JCDL'05)*, p. 409, June 2005, Denver, CO.

6. **Alex Dekhtyar**, Ionut E. Iacob, Jerzy W. Jaromczyk, Kevin Kiernan, Neil Moore and Dorothy Carr Porter, (2005), Building Image-based Electronic Editions using the Edition Production Technology, demo, in *Proceedings, 5th Joint Conference on Digital Libraries (JCDL'05)*, p. 406, June 2005, Denver, CO.

7. Ionut E. Iacob, **Alex Dekhtyar**, Jerzy W. Jaromczyk, Kevin Kiernan, Neil Moore, Dorothy Carr Porter, (2005), Edition Production Technology: an Eclipse Based Platform for Building Image-Based Electronic Editions, demo, in *Proceedings, International ACH-ALLC Conference-2005*, pp. 89-90, June 2005, Victoria, Canada.

Refereed Posters and Workshop Presentations

1. Paul E. Anderson, Kelly Bodwin, **Alex Dekhtyar**, Hunter Glanz, Foaad Khosmood, Lubomir Stanchev, Dennis L. Sun, Jonathan Ventura (2023) Discussing the History of Ideas in a Data Science Seminar, poster, in Proceedings ACM SIGCSE Conference, p. 1328, March, 2023.

2. Thorsten Ruprecher, Foaad Khosmood, Toshihiro Kuboi, **Alex Dekhtyar**, Christian Gütl (2018) Gaining Efficiency in Human Assisted Transcription and Speech Annotation in Legislative Proceedings, poster, *19th Annual International Conference of Digital Government Research (DG.O'2018)*, Delft, The Netherlands, May 30-June 1, 2018.

3. Daniel Kauffman, Foaad Khosmood, Toshihiro Kuboi, **Alex Dekhtyar**, (2018) Learning Alignments from Legislative Discourse, poster, *19th Annual International Conference of Digital Government Research (DG.O'2018)*, Delft, The Netherlands, May 30-June 1, 2018.

4. Aldrin Montana, **Alex Dekhtyar**, Emily Neal, Chris Kitts, Michael Black, (2011), Chronology-Sensitive Hierarchical Clustering of Pyrosequenced DNA Samples of *E.coli*, poster, *UCSB Graduate Student Workshop on Computing (GSW'2011)*, pp. 45-46, October 2011, Santa Barbara, CA.

5. Eriq Augustine, Cailin Cushing, Kim Paterson, Matt Tognetti, **Alex Dekhtyar**, (2011), Detecting Service Outages via Social Media Analysis, poster, *UCSB Graduate Student Workshop on Computing (GSW'2011)*, pp. 43-44, October 2011, Santa Barbara, CA.

6. **Alex Dekhtyar**, Developing an Undergraduate Course in Knowledge Discovery from Data, *poster, 12th CSU Regional Symposium on University Teaching*, May 2009, Cal Poly, San Luis Obispo.

7. **Alex Dekhtyar**, Jane Hayes, Judy Goldsmith, (2007), Uncertainty as the Source of Knowledge Transfer Opportunity, (2007), *position paper, First International Workshop on Living with Uncertainty in Software Engineering (IWLU'2007)*, Atlanta, GA, November 2007.

8. **Alex Dekhtyar**, Jane Huffman Hayes, (2006), Good Benchmarks are Hard to Find: Toward the Benchmark for Information Retrieval Applications in Software Engineering, *position paper, working session on Information Retrieval in Software Engineering, International Conference on Software Maintenance (ICSM)*, September 2006, Philadelphia, PA.

9. Ionut E. Iacob, **Alex Dekhtyar**, (2006), Multihierarchical XQuery, software demonstration, *3rd International Workshop on XQuery Implementation, Experience and Perspectives (XIME-P'06) at ACM SIGMOD'06*, June 2006, Chicago, IL.

10. **Alex Dekhtyar**, Raphael Finkel, Judy Goldsmith, Beth Goldstein and Cynthia Isenhour, (2005), Adaptive decision support for planning under hard and soft constraints, *Proceedings, AAAI Spring Symposium on Challenges to Decision Support in a Changing World*, March 2005, Palo Alto, CA.

11. Wenzhong Zhao, **Alex Dekhtyar**, Jiangyu Li, Eric Jessup and Judy Goldsmith, (2003), Building Bayes Nets with Semistructured Probabilistic Databases, poster presentation, *International Conference on Conceptual Modeling (ER'2003)*, October 2003, Chicago, IL.

12. **Alex Dekhtyar**, V.S. Subrahmanian, (1998), Proof Procedures for Hybrid Probabilistic Programs, in *Proceedings, Workshop on Probabilistic Logic And Randomized Computation'98*, *European Summer School on Logic Language and Information (ESLII'98)*, August 1998, Saarbrueken, Germany.

Abstracts

1. Jason Kent, Maria Alvarado, Jennifer VanderKelen, Aldrin Montana, Jan Soliman, **Alex Dekhtyar**, Anya Goodman, Christopher Kitts, Michael Black, (2014) Pyroprinting: Novel Pyrosequencing-based Method for Studying E.Coli Diversity and Microbial Source Tracking, *The FASEB (Federation of American Societies for Experimental Biology) Journal*, Volume 28, no. 1 supplement, abstract no. 779.8.

Non-Refereed Publications

Invited Papers

1. Orlena Gotel, Jane Cleland-Huang, Andrea Zisman, Jane Huffman Hayes, **Alex Dekhtyar**, Patrick Mäder, Alexander Egyed, Paul Grünbacher, Giulio Antoniol and Jonathan Maletic, (2011), Glossary of Traceability Terms (v.1.0.), *to appear in* Jane Cleland-Huang (Ed.), Orlena Gotel (Ed.), Andrea Zisman (Ed.), *Software and Systems Traceability*, Springer, ISBN: 1447122380, February 2012.

2. Ander de Keijzer, Maurice van Keulen, **Alex Dekhtyar** (2007) Report on the First VLDB Workshop on Management of Uncertain Data (MUD). *SIGMOD Record*, Vol. 36, No. 4., pp. 57-58.

3. Ionut E. Iacob, **Alex Dekhtyar**, Dorothy Carr Porter, Kevin Kiernan, (2007) Extended XQuery for Digital Libraries, *IEEE Technical Committee on Digital Libraries Bullutin*, Vol. 3, Issue 2, Summer 2007, http://www.ieee-tcdl.org/Bulletin/current/dekhtyar/dekhtyar.html.

4. **Alex Dekhtyar**, Ionut E. Iacob, Jerzy W. Jaromczyk, Kevin Kiernan, Neil Moore, Dorothy Carr Porter, (2005), Building Image-based Electronic Editions using the Edition Production Technology, *IEEE Technical Committee on Digital Libraries Bullutin*, Vol 2, Issue 1, 2005,

5. Ionut E. Iacob, Alex Dekhtyar, (2005), Processing XML Documents with Overlapping Hierarchies, *IEEE Technical Committee on Digital Libraries Bullutin*, Vol 2, Issue 1, 2005.

6. Wenzhong Zhao, **Alex Dekhtyar**, Judy Goldsmith, Eric Jessup and Jiangyu Li, (2004), Building Bayes Nets with Semistructured Probabilistic Databases, *GI-EMISA Forum*, Band 24, Number 1, pp. 29–30.

7. Jane Huffman Hayes, James M. Carigan and **Alex Dekhtyar**, (2004) Recommending a Framework for Comparison of Requirements Tracing Experiments, in *Proceedings, Workshop on Empirical Studies of Software Maintenance (WESS 2004)*, September 2004, Chicago, IL.

8. Kevin Kiernan, **Alex Dekhtyar**, Jerzy W. Jaromczyk, Dorothy Carr Porter and Ionut E. Iacob, (2004), Edition Production Technology (EPT) and the ARCHway Project, *DigiCULT Newsletter*, pp. 36-39, August, 2004 .

Book Reviews

1. **Alex Dekhtyar**, (1999), Review of *Logic For Applications*, by A. Nerode and R. Shore, in SIGACT NEWS, Vol. 30, No. 3, 1999.

2. **Alex Dekhtyar**, (1998), Review of *Vicious Circles*, by J. Barwise and L. Moss, in SIGACT NEWS, Vol 29, No. 4., 1998.

3. **Alex Dekhtyar**, (1997), Review of *Reasoning About Knowledge*, by R. Fagin, J. Halpern, Y. Moses, M. Vardi, in SIGACT NEWS, Vol. 28, No. 4, 1997.

Patents

1. Katertina Axelsson, **Alexander Dekhtyar**, Toshihiro Kuboi, Foaad Khosmood, Evan Lanuza, Timothy Scott, Eric Thorndyke (2021) Systems and Methods for Tracking Consumer Tasting Preferences, US Patent Office, US20170148084A1, Application number US15/359518 (publication date May 25, 2017)

Talks, Presentations, and Panels

1. "Data Science Capstone Sequence at Cal Poly", invited talk, First Special Colloquium Series for Mathematical Sciences (SCSM), Georgia Southern University, April 2, 2021. (https://cosm.georgiasouthern.edu/math/southern-georgia-mathematics-conference/)

2. "In-concert Teaching of Software Engineering For All Course", invited talk, Russian on-Line Seminar on Problems of Software Engineering, Theory, and Experimental Programming (ru-STEP), March 5, 2021 (in Russian), (**https://persons.iis.nsk.su/en/ruSTEP**)

3. "Teaching Software Engineering for All Course", intvited talk, Boris Trakhtenbrodt Centenary Memorial Workshop on Foundations on Computer Science, Higher School of Economics, Moscow, Russia, February 20, 2021 (in Russian) (https://pais.hse.ru/centenary)

4. "Cross-Disciplinary Studies Minor in Data Science", Invited talk, Loyola Marymount University, October, 2018.

5. "Cross-Disciplinary Studies Minor in Data Science: Structuring Data Sceince Education to Benefit From Existing Programs", Invited talk, Keenesaw State University, October, 2017.

6. "Hybrid Probabilistic Programs: 1997-2017", Test of Time award talk, International Conference on Logic Programming (ICLP'2017), Melbourne, August 2017.

7. "Developing a Cross-Disciplinary Minor in Data Science at Cal Poly", invited talk, Oracle Labs, May 2014.

8. "Teaching in Concert: Bioinformatics at Cal Poly", Anya L. Goodman, **Alex Dekhtyar**, invited talk, CSUPERB'2013 Conference, Scientific Teaching Workshop, Anaheim, CA, January 5, 2013.

9. "Teaching in Concert: A Novel Approach to Interdisciplinary Collaborative Project-Based Instruction", Anya L. Goodman, **Alex Dekhtyar**, invited talk, American Society for Cell Biology Annual Meeting (ASCB'2013), San Francisco, CA, December 17, 2012.

10. “People I Met While on Duty”, Cal Poly, Computer Science Week of Welcome Ignite, September 13, 2012, San Luis Obispo, CA.
11. “On the Current Trends in Computer Science”, Applied Mathematics and Cybernetics program, Tver State University, Tver, Russia, invited talk, September 1, 2012 (in Russian).
12. “Harnessing the Power of On-line Complaints”, department of Computer Science colloquium, University of California, Merced, invited talk, April 2012.
13. “Know Thy Faculty”, Cal Poly, Computer Science Week of Welcome Ignite, September 14, 2011, San Luis Obispo, CA.
14. ”Grand Challenges, Benchmarks, and TraceLab: Developing Infrastructure for the Software Traceability Research Community”, panel member, International Workshop on Traceability in Emerging Forms of Software Engineering (TEFSE’2011), May 23, 2011.
15. ”University Learning Objectives: Oral Communictation”, panel member, Cal Poly, Center For Teaching and Learning workshop, Spring 2011.
16. “What ELSE Computer Science is Good At. . . ”, Cal Poly, Computer Science Week of Welcome Ignite, September 15 ,2010, San Luis Obispo, CA.
17. “Techniques for Requirements Traceability Matrix (RTM) Evaluation”, NASA Software Assurance Symposium (SAS), July 18, 2006, Morgantown, WV.
18. “Center of Excellence for Traceability”, NASA Software Assurance Symposium (SAS), July 20, 2006, Morganttown, WV.
19. “RETRO: Requirements Tracing On-target”, software demonstration, NASA Software Assurance Symposium (SAS), August 10, 2005, Morgantown, WV.
20. “The ARCHway Project: Building Image-Based Electronic Editions of Historic Manuscripts”, invited talk, Department of Computer Science, University of Waterloo, Waterloo, Canada, April 2005.
21. “RETRO: REquirements TRacing On-target”, with J. Hayes, Training Session, NASA IV&V Center, Fairmont, WV, January 2005.
22. “The ARCHway Project”, software demonstration, *NSF IDM PI Workshop*, Boston, MA, October 2004.
23. “Management of Concurrent Document-Centric XML Markup in the ARCHway project”, invited talk, IBM Almaden Research Center, San Jose, CA, September 12, 2003.
24. “Robust Requirements Tracing Using Information Retrieval, Part II”, with J. Hayes, NASA SAS (Software Assurance Symposium, Morgantown, WV, Aug 30, 2003.
25. “Robust Requirements Tracing Using Information Retrieval”, with J. Hayes, Training Session, NASA IV&V Center Fairmont, WV, June 16 2003.
26. “Conditionalization of Interval Probabilities: The Good, The Bad and The Ugly”, Fall 2002 Midwest Theory Day, DePaul University, Chicago, December 6, 2002.
27. “An Introduction to XML”, ACM Student Lecture Series, University of Kentucky, November 2002.

28. “Robust Requirements Tracing Using Information Retrieval”, NASA SAS (Software Assurance Symposium), Berkeley Springs, WV, September 2002.

29. “Possible Worlds Semantics for Probabilistic Logic Programs”, Fall 2000 Midwest Theory Day, DePaul University, Chicago, December 2, 2000.

30. “Probabilistic Temporal Databases”, Decision Science and Information Systems Colloquium, Gatton College Of Business and Economics, University of Kentucky, Spring 2001.

31. “Bayesian Advisor Project”, Department of Statistics Colloquium, University of Kentucky, Spring 2001, (with Judy Goldsmith).

Grants

Current Support

- “Digital Democracy”, co-PI, Associate Project Director (Foaad Khosmood, PI, Progject Director), Cal Matters, $210,000.00

- “CUE Ethics: Collaborative Research: CS4All: An Inclusive and In-Depth Computer Science Curriculum for Non-Majors”, co-PI (Bruce DeBruhl, PI), NSF, $176,000.00

- “HDR DSC: Collaborative Research: Central Coast Data Science Partnership: Training a New Generation of Data Scientists”, co-PI (Jonathan Ventura, PI), NSF, $234,000.00

Prior Support

1. “PathML: Posture Analysis THrough Machine Learning”, co-PI (Sarah Keadle, PI), National Cancer Institute (NCI) SBIR (NIH), $126,926

2. “Cross-Disciplinary Studies Minor in Bioinformatics”, co-PI (Ed Himelblau, PI), Center for Advancing of Women in Technology (CAWIT), $400,000

3. “The Digital Democracy Project: FL/TX”, Co-PI (Foaad Khosmood, PI), Laura and John Arnold Foundation, $1,116,789 ($469,869 technical budget)

4. “The Digital Democracy Project: CA/NY”, Co-PI (Foaad Khosmood, PI), Laura and John Arnold Foundation, $2,846,335 ($1,613,515 technical budget)

5. “Digital Democracy”, Co-PI (Foaad Khosmood, PI), Laura and John Arnold Foundation, $1,200,000 ($796,000 technical budget)

6. “Development of a novel method for identification of contaminants in plant-based products.”, senior collaborator (Anya Goodman, PI), Cal Poly Research, Scholarly and Creative Activities Grant program, 2016, $13,950

7. “User Engagement in the Digital Democracy Project”, Co-PI (Foaad Khosmood, PI), Rita Allen Foundation, $165,000 ($ 126,474 technical budget).

8. "Geospatial Support for the Pipeline Industry", Co-PI (Jim Dunning, PI), Department of Transportation, $799,946

9. "Preparing the Next Generation of STEM Professionals: Integrating Computational Thinking into an Applied Molecular Forensic Research Program", co-PI, (Chris Kitts, PI; Michael Black, Anya Goodman, Co-PIs), NSF TUES grant $200,000

10. "The Digital Democracy Project", Co-PI (Foaad Khosmood, PI), Laura and John Arnold Foundation $1,300,000 ($450,000 technical budget)

11. "The Digital Democracy Project", PI (Jan 2014–May 2014), co-PI (June 2014 – Oct 2014), California Reform Foundation, $87,000.

12. "Supporting Interdisciplinary Distributed Systems Projects and Coursework with Raspberry Pis", co-PI, (Chris Lupo, PI), Cal Poly CP-Connect grant, April 2013 – October 2014 $3,920

13. "Transparent Legislature Project", co-PI, (Foaad Khosmood, PI; Franz Kurfess, co-PI), California Reform Foundation, April — July 2013, $4,428.

14. "Integrating Molecular Forensics Modules into the Undergraduate Science Curriculum", co-PI, (Chris Kitts, PI; Michael Black, Matt Carlton, Anya Goodman, Co-PIs), CSUPERB grant, September 2011 - May 2012, $15,000

15. "Integrating Molecular Forensics into the Undergraduate STEM Curriculum", The W.M. Keck Foundation, co-PI, (Raul Caño, PI, Chris Kitts, Michael Black, Anya Goodman, Rafael Jimenez-Flores, co-PIs), September 2010 – August 2012, $249,000.

16. "Requirements traceability: study of the analyst", PI, Lockheed-Martin CS grants, September 2010 - August 2011, $5,000.

17. "Towards a robust undergraduate overview course on Knowledge Discovery from Data.", PI, Cal Poly Center for Teaching and Learning Grant, January 2009 - December 2009 $4,000.

18. "Management of XML for Digital Library Applications", PI, Cal Poly State Faculty Support Grant, November 2008 — July 2009, $4,000

19. "Visualization of Decision-Theoretic plans", PI, Cal Poly Honors Project Program, January 2008 – December 2008, $4,000

20. "International Symposium on Grand Challenges in Traceability", Co-PI, (Jane Hayes, PI, Jane Cleland-Huang, Brian Barenbach, co-PIs), NSF, September 2006 - August 2007, $25,000.

21. "Center for Excellence in Traceability", Co-PI, (Jane Hayes, PI), NASA, September 2006 - August 2007, $203,000

22. "ITR: Decision-Theoretic Planning with Constraints", co-PI, (Judy Goldsmith, PI, Miroslaw Truszczynski, Beth Goldstein, co-PIs), NSF (medium-size ITR), September 2003 — August 2007, $1,200,000

23. "Improving Requirements Tracing tools", Co-PI, (Jane Hayes, PI), NASA, September 2005 – August 2006, $50,000

24. "Improving IV&V Using Information Retrieval and Text Mining" co-PI, (Jane Hayes, PI), NASA, August 2004 – July 2005 $134,916

25. "ITR: The Archway Project", co-PI, (Kevin Kiernan, PI; Jerzy Jaromczyk, Co-PI), NSF, (small ITR), September 2002 – August 2004, $224,00

26. "Robust Requirments Tracing via Internet Search Technology: Phase II", NASA, PI, (Jane Hayes, Co-PI), January 2003 – December 2003, $86,616

27. "Robust Requirements Tracing via Internet Search Technology: Phase I", NASA, co-PI, (Jane Hayes, PI), January 2002 – December 2002, $46,000

Awards

- Certificate of Recognition, International Conference on Requirements Engineering'2019 for organization of the RE Cares 2020 event, September 2020.
- Certificate of Recognition, International Conference on Requirements Engineering'2019 for organization of the RE Cares 2019 event, September 2019.
- Department of Computer Science and Software Engineering Service Award, Cal Poly, 2017-2018 academic year.
- Test of Time Award, International Conference on Logic Programming (ICLP 2017), August 29 - September 1, Melbourne, Australia, for "Hybrid Probabilistic Programs" (ICLP'1997) (with VS Subrahmanian).
- Winning team member (Sentimetrix, Inc team), ACL N-GRID Natural Language Processing Challenge, July-August 2016, (with VS Subrahmanian, Vadim Kagan, Skylar Durst, Joshua Terrell, Andrew Stevens).
- Winning team member (Sentimetrix, Inc team), DARPA Twitter Bot Challenge, February-March 2015 (with VS Subrahmanian, Vadim Kagan, Skylar Durst, Amos Azaria, Andrew Stevens).
- Letter of Commendation for work on the Digital Democracy Project from CSU Chancellor Timothy White, 2015.
- Most Influential Paper (MIP) Award, International Conference on Requirements Engineering (RE' 2013), for "Improving Requirements Tracing via Information Retrieval", July 2013, Rio de Janeiro, Brasil, (with Jane Huffman Hayes and James Osborne)
- Best Paper Award, ASEE Zone 4 for "Teaching Bioinformatics in Concert: an Interdisciplinary Collaborative Project-based Experience", April 2013, (with Anya L. Goodman and Aldrin Montana).
- Best Paper Award, ASEE-PSW'2013 conference for "Teaching Bioinformatics in Concert: an Interdisciplinary Collaborative Project-based Experience", April 2013, (with Anya L. Goodman and Aldrin Montana).
- Advisor, Outstanding M.S. Thesis, Cal Poly, 2013 (M.S. student: Aldrin Montana).
- Professor of the Year, department of Computer Science, 2012, Cal Poly ACM Chapter award.
- Best Poster Award, UCSB Graduate Student Workshop on Computing (GSW'2011), 2011, for "Detecting Service Outages via Social Media Analysis" (with Eriq Augustine, Cailin Cushing, Kim Paterson, Matt Tognetti).

- Best Paper Award, NASA Software Assurance Symposium (SAS), 2006, for "Advancing Candidate Link Generation for Requirements Tracing: the Study of Methods" paper in *IEEE TSE* (with Jane Hayes, Senthil Sundaram).
- The Award for Best Research Initiative in 2005, NASA IV&V Center, Fairmont, WV, for work on the initiative "Imporving Reqts Tracing and IV&V via IR and Text Mining," (with Jane Hayes).
- The "Buzz" Award, NASA SAS (Software Assurance Symposium), 2003, for "Robust Requirements Tracing via Information Retrieval" project, (with Jane Hayes).
- "Bayesian Advisor Project", winner, best poster, Department of Computer Science Industry Day, Spring 2001, with Judy Goldsmith and Brett Young.

Student supervision

California Polytechnic State University

Current M.S. students

1. Bella White, *Evaluation of State Legislative Hearings*, Spring 2023 – present.
2. Daniel Gonzalez,*UFAT: Urban Forest Assessment Tools*, Spring 2023 – present.
3. Nicholas Tan, *UFAT: Urban Forest Assessment Tools*, Fall 2023 – present.
4. Kenny Lau, *The Digital Democracy Knowledge Base and API*, Fall 2022 – present.
5. Kaanan Kharwa, *Counting Elephants Seals on Aerial Images*, Fall 2022 – present.

M.S. students defended

1. Erik Bruenner, *Predicting Location and Training Effectiveness (PLATE)*, Fall 2021 – present.
2. Thomas Gerrity, *STRAINER: State TranscriptRating for Informed News Entity Retrieval*, Summer 2022
3. Roxanne Miller, *LADLE: Lasting Action Detection of Live Exercise*, Spring 2021
4. Dmitriy Timokhin, *COLANDER - Convolving Layer Network Derivation for E-Recommendations*, Spring 2021
5. Ryan Smith, *Investigating Daily Fantasy Baseball: An Approach to Automated Lineup Generation*, Spring 2021
6. Ginger DeWitt, *LOTUS: A Web-Based Computational Tool for the Preliminary Investigation of a Novel MST Method Utilizing a Library of 16S rRNA Bacteroides OTUs*, Spring 2021
7. Andrew Migler, *Data-Driven Database Education: A Quantitative Study Of SQL Learning In an Introductory Database Course*, Spring 2019.
8. Nicholas Russo, *DiSH: Democracy2Vec in State Houses*, Winter 2019.

9. Samantha Hsu, *CLEAVER: Classification of Everyday Activities Via Ensemble Recognizers*, Fall 2018.
10. Vivian Fong, *Software Requirements Classification Using Word Embeddings and Convolutional Neural Networks*, Spring 2018.
11. Anirudh Venkatesh, *Object Tracking in Games using Convolutional Neural Networks*, Spring 2018.
12. Tram Lai, *Enhancements to the Microbial Source Tracking Process through the Utilization of Clustering and k-Nearest Clusters Algorithm*, Winter 2018.
13. Andrew Wang, *TONGS: TL;DR: Online Narrative Generating System*, Fall 2017.
14. Skylar Eglowski, *CREATE: Clinical REcords Analysis Technologies Ensemble*, Spring 2017.
15. Jeff McGovern, *Investigating The k-Nearest Neighbors Resolution Algorithms for Pyroprints and Clustering for Microbial Source Tracking*, Winter 2017.
16. Christopher Wu, *SKEWER: Sentiment Knowledge Extraction With Entity Recognition*, Spring 2016.
17. Jiewen (Sam) Wu, *WHISK: Web-Hosted Information into Summarized Knowledge*, Spring 2016.
18. Justin Rovin, *Reducing Costs in Human Assisted Speech Transcription*, Winter 2016.
19. Eric Johnson, *Density-Based Clustering of High-Dimensional DNA Fingerprints for Library-Dependent Microbial Source Tracking*, Fall 2015.
20. Austin Wylie, *Geospatial Data Modeling to Support Energy Pipeline Integrity Management*, Spring 2015 (Chris Lupo, co-advisor).
21. Alexandra Francis, `REST API to Access and Manage Geospatial Pipeline Integrity Data`, Spring 2015 (Chris Lupo, co-advisor).
22. Jeff Forrester, (co-advisor, advisor: Chris Lupo), *Platforms for Teaching Distributed Computing Concepts to Undergraduate Students*, Spring 2015.
23. Andrew Guenther, *ARTS And CRAFTS: Predictive Scaling for Request-Based Services in the Cloud*, Spring 2014.
24. Kimberly Paterson, *TSPOONS: Tracking Salience Profiles of On-line News Stories*, Spring 2014.
25. Hallie Meth (co-advisor, advisor: Chris Lupo), *DECAFS: A Modular Distributed File System to Facilitate Student Learning*, Spring 2014.
26. Brett Armstrong, *Automated Requirements traceability with TraceLab*, Fall 2013.
27. Steffen Lyngbaek, *SPORK: A Summarization Pipeline for Online Repositories of Knowledge*, Spring 2013.
28. Marc Zych, *An Analysis of Generational Caching Implemented in a Production Website*, Spring 2013.
29. Ryan Verdon, *Getting Biologists to Drop ACID*, Spring 2013.
30. Jan Lorenz Soliman, *CPLOP: Cal Poly Library of Pyroprints*, Spring 2013.
31. Aldrin Montana, *Algorithms for Library-based Microbial Source Tracking*, Spring 2013, **Outstanding M.S. Thesis Award, 2013**.

32. Eriq Augustine, *SPOONS: Netflix Outage Detection Using Microtext Classification*, Winter 2013.
33. Cailin Cushing, *Detecting Netflix service outages through analysis of Twitter posts*, Spring 2012.
34. Jeff Holden, *The Study of Semi-Automated Traceability*, Spring 2011.
35. J.T. Gilkeson, *Digital Signaling Processor Resource Management For Small Office Phone Systems.* Spring 2010.
36. David Cuddeback, *Automated Requirements Traceability: the Study of Human Analysts*. Spring 2010.
37. Gabriel De La Calzada, *A Strategy-oriented Machine Learning Approach to Automatic Quality Assessment of Wikipedia Articles*, Spring 2010.
38. Jong Lee, *Recommender System for Audio Recordings*, Winter 2010.
39. Michael Huffman, *JDiet: Footprint Reduction for Memory-constrained Systems*, Spring 2009.
40. Chad Smith (work performed under direction of Laurian Chirica), *Building an Operational Data Store for a Direct Marketing Application System*. Winter 2009.
41. Evan Rosson, *Native XML Support for Semistructured Probabilistic Data Management*, Spring 2008.

Ph.D. Committee Service

1. Eriq Augustine, Ph.D., University of California Santa Cruz (UCSC), March 2023, member, Ph.D. Committee.

Past senior projects

2022-2023 Claire Saliers, Chris Aruiza, Ricardo Beltran, Parker Landsman, Edward Du (BMS), Andy Do, Ryan Linard, Collin Streun, Dustin Tran, Charlie Ward, Micah Wibowo, Gabriel Young, Mansi Achuthan

2021-2022 Austin Bryant, Daniel Yim, Andrew Eller, Gaurav Joshi, Kaanan Kharwa (BMS), Kenny Hua (BMS), Srirag Vuppala.

2020-2021 Jonathan Fisher, Michelle Jakab, Julian Davis.

2019-2020 Matthew Triau, Lucas Han, Zachary Langer, Jacob Rakestraw, Ilya Minarov, Ian O'Rourke, Roxanne Miller (ASCI), Kyaw Lwin Soe, Thomas Gerrity (BMS).

2018-2019 James Abundis, Matthew Sewall, Jesse Bao, Steven Bradley, Christian Diaz, Patrick Farrell, Isaac Hintergardt, Edward Kesicki, Joe Wijoyo, Natalie Keelan (STAT).

2017-2018 Charles Gels, Michael Haskell, Varsha Ravi Kumar, Curtis Hilgenberg, Clay Jacobs, Chris Gaydosh, Cole Grigsby, Ryan Bouquet, Yash Mehra, Andrew Rose, Kyle Vigil, Thomas White.

2016-2017 Miguel Aguilar, Sal Espinosa, Vincent Stumpf, Nicholas Verbos, Dennis Wong, Erica Dorn, Jon Kuzmich, Michael Li, James Ly, Sage Maxwell, Ryan Mckinney, Vihari Muttineni, Daniel Stone, Kyle Tanemura, Eric Roh.

2015-2016 Eric Thorndyke, Scott Lam, Mitchell Fierro, Colin Adams, Devan Carlson, Derek Chan, Delaney Giacalone, Jared Kirk, Blaine Oelkers, Michael Slevin, Andrew Voorhees (STAT)

2014-2015 Patrick Herrmann, Daniel Mangin, Peter Faiman, Brandon Leventhal.

2013-2014 Chase Ricketts, Jeff McGovern (MATH), Skylar Durst.

2012-2013 Therin Irwin, Alissa Lawrence, Rudolfo Alfaro, Michael van der Beek, Alex Spotnitz (CPE), Geoffrey Lawson.

2011-2012: Matt Tognetti, Kevin Webb (CPE), Megan Vampola (CPE), Dane Iracleous, Matthew Carson, Stephen Reichling, Robin Usher, Alejandro Castorena.

2010-2011: Justin Sookikian, Colin Pade, Brian Norman, Sean Powers, Ryan Avendano, Kyle Williamson, Alex Matzinger (CPE), Arlo While, Andrew Chan.

2009-2010: Nathan Dailey, Briano Planeta, Joshua Lange, Peter Oyler, Selina Chang, Matthew Rockwell.

2008-2009: Jamie Ray, Brian Colvin, Jacob Verburg, Kyle Cushing, Asaf Meisels (CPE), Jeffrey Smith.

2007-2008: Vinay Anantharaman, Ryder Ross, Derek Johnson, Steven Weigand.

Other Student Projects

1. Ricardo Beltran, Parker Landsman, Laura Camacho, Rhoyalinn Careno, Arya Jani, Abigayle Mercer, Emilia Ortiz, Jonron Pettit, Brandon Wong: Vera 2022-2023.
2. Kenny Lau, Yaniv Sagy, Srirag Vuppala, Marissa Darnell, Anushree Parmar: RE CARES 2021.
3. Michelle Jakab, Greg Bisbjerg, Gwennie Kidd, Suhas Panthari, Arman Rafian: RE CARES 2020.
4. Zachary Langer, *Study of GPA Achievement Gaps in CSU*. independent study, Fall 2018 - Winter 2019
5. Michael Hilton, *Building an experiment for TraceLab*, independent study, Spring 2012.
6. Kim Paterson (dept. of English), *Sentiment analysis in social networks*, independent study, Fall 2010 – Spring 2011.
7. Jason Anderson, Dominic Camargo, Ben Davini, Brian Oppenheim, *Finding Associations Between Stock Prices and News Articles*, CSU Student Research competition, 2010 (faculty advisor).
8. Ravi Gill, *Horse Nutrition Database Application Software*, Software Engineering program coop experience, Winter-Spring 2009 (CS faculty advisor).
9. Adam Dukovich, Michael Huffman, Jimmy Hua, Jong Lee, *JOXM: Java-to-XML Object Mapping*, student team project, 2008, (faculty advisor)

Past Honors Research Projects

1. Brian Oppenheim, *Visualisation of Decision-Theoretic Plans*, Winter 2008 – Spring 2009.
2. Evan Hecht, *Visualisation of Decision-Theoretic Plans*, Winter 2008 – Spring 2009.
3. Dara Stepanek, (dept. of Mathematics), *Visualization of Decision-Theoretic Plans*, Winter 2008 – Spring 2009.

University of Kentucky

Ph.D. students defended:

- Senthil Karthikeyan Sundaram, Ph.D., June 2006, (co-advisee, primary advisor, Dr. Jane Hayes), *Tracing Textual and Non-textual Requirements Using Information Retrieval Techniques*.
- Iounut Emil Iacob, Ph.D., November, 2005, *Algorithms for Management of Document-Centric XML Data.*
- Wenzhong Zhao, Ph.D., Summer 2004, *Semistructured Probabilistic Databases.*

M.S. students defended:

1. Sunil Kolawar, M.S. project, Summer 2007, *Paginated back-end for RETRO.*
2. Praveen Gutti, M.S. project, Spring 2006, *SPOQL - an SQL-like query language for Semistructured Probabilistic Databases.*
3. Saad Masood Ijad, M.S. project, Fall 2006, *Signature Joins for Handheld Devices*
4. Karthik Ramkumar, M.S. project, Fall 2006, *A Prototype Multihierarchical DBMS: Query Engine*
5. Srikanth Vasamreddy, M.S. project, Fall 2006, *A Prototype Multihiearchical DBMS: Index Structures*
6. Karthikeyan Sethuramasubbu, M.S. project, Fall 2006, *Distributed DOM for Multihiearchical XML.*
7. Sravanthi Vadlamudi, M.S. project, Summer 2006, *A New Front End for RETRO*.
8. Swati Tata, Spring 2006, *Translating Multihiearchical XPath into XQuery*.
9. Samuel Wesley Coyle, Spring 2006, *A Data Warehouse for Web Server Logs*,
10. Prakash Narayanan, M.S. project, Spring 2005 *Data Storage Techniques for Semistructured Probabilistic DBMS.*
11. Srikanth Methuku, M.S. project, Spring 2005 *Extended XPath for Multihierarchical XML: the Case of Fragmentation* .
12. Vikram Goplan, M.S. Fall 2004, *Efficiently Learning Probabilistic Distributions for Bayes Networks from Instance Data*.
13. Ganapathi Chidambaram, M.S. project, Summer 2004, *Latent Semantic Indexing for Requirements Tracing*.
14. Hua Shao, M.S. project, Spring 2004, *Information Retrieval System for Kentucky Kernel*.
15. Jiangyu Li, M.S. project, Spring 2004, *Probability Elicitation Tool.*
16. Gaganpreet Kaur, M.S. project, Spring 2004, *Multimedia Presentation Systems Using XML.*
17. Sarah Howard, M.S. project, Fall 2003, *Information Retrieval Techniques for Requirements Tracing*.
18. Husamuddin Nasir, M.S. project, Summer 2003, *A Lightweight Document-Centric XML Editor*.

19. Wenqiong Chen, M.S. project, Summer 2001, *Developing Multimedia Presentations using XML and JMF*.

Ph.D. Committee Service

1. Shuting Xu, Department of Computer Science, Jun Zhang, advisor, *Ph.D., Summer 2005*.
2. Sergey Tarima, Department of Statistics, Richard Kryscio, advisor, *Ph.D., Summer 2005* (outside committee member).
3. Christopher Lusena, Department of Computer Science, Judy Goldsmith, advisor, *Ph.D, Summer 2001*.

Teaching: Courses Taught

1. Data Science Projects Laboratory, CP, Fall 2022.
2. Software Engineering Without Programming, CP, Winter 2020.
3. Advanced Data Mining, CP, Spring 2017, Winter 2022
4. Data Science Capstone I, CP, Winter 2017, Winter 2018, Winter 2019, Winter 2020, Winter 2023.
5. Data Science Capstone II, CP, Spring 2017, Spring 2018, Spring 2019, Spring 2020, Spring 2023.
6. Data Science, CP, Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2022.
7. Introduction to Data Science, CP, Spring 2016, Spring 2022.
8. Distributed Computing, CP, Winter 2016, Winter 2017, Winter 2019, Spring 2020 (virtual).
9. Advanced Topics in Database Systems: Modern DB Architectures, CP, Fall 2012, Fall 2014.
10. Bioinformatics Algorithms, CP, Spring 2012, Spring 2013, Fall 2014, Fall 2015.
11. Special Topics in Computer Science: Bioinformatics Algorithms, CP, Fall 2011.
12. Web Mining, CP, Fall 2009.
13. M.S. Thesis Seminar, CP, Fall 2009, Spring 2010, Winter 2011, Fall 2011, Fall 2014, Fall 2015, Spring 2016, Spring 2019.
14. Knowledge Discovery from Data, CP, Spring 2009, Fall 2010, Spring 2012, Fall 2015, Spring 2018, Fall 2018, Fall 2019, Fall 2021.
15. Fundamentals of Computer Science I, CP, Fall 2008, Fall 2009, Winter 2011, Winter 2012, Fall 2013.
16. Organization and Implementation of DBMS,CP, Spring 2008, Winter 2009, Fall 2010, Fall 2013, Spring 2016.
17. Intro to Databases, CP, Fall 2007, Spring 2008, Spring 2010, Spring 2011, Fall 2011, Fall 2012, Winter 2012, Fall 2013, Winter 2013, Winter 2015, Fall 2016, Spring 2017, Winter 2022, Fall 2022, Winter 2023, Spring 2023.

18. Database Modeling, Design and Implementation, CP, Winter 2008, Spring 2009, Winter 2010, Spring 2011, Winter 2012, Spring 2013, Spring 2015, Winter 2018, Spring 2019.
19. Web Programming, UK, Fall 2005, Spring 2006.
20. XML and Management of Semistructured Data, UK, Spring 2005, CP, Fall 2007.
21. Data Mining, UK, Spring 2003, Spring 2004.
22. Introduction to Database Systems, UK, Spring 2002, Spring 2003, Fall 2003, Spring 2005, Spring 2006.
23. Information Retrieval, UK, Fall 2001.
24. Database Systems, UK, Spring 2001, Fall 2002, Spring 2004, Fall 2005, Fall 2006.
25. Advanced Topics in Database Systems, UK, Fall 2000.
26. Introduction to Discrete Mathematics, UMd, Summer 1999.
27. Introduction to Computer Science (C Programming), UMd, Summer 1998.
28. Introduction to Internet, UMd, Summer 1996.
29. Programming Languages, UMd, Summer 1996.

Teaching: Courses Developed

As Part of Quarter-to-Semester Conversion

Note: development of all semester courses is *in progress*. Courses annotated with [*] are being co-developed with a group of colleagues.

1. CSC 2600: Computing with Data, CP.
2. CSC 3004: Software Engineering Without Programming, CP.
3. CSC 3660: Introduction to (Relational) Databases, CP.
4. CSC 3662: Introduction to Non-Relational Databases, CP.
5. CSC 3665: Introduction to Database Management Systems [*], CP.
6. CSC 4665: DBMS Organizations [*], CP.
7. CSC 5660: Advanced Database Management Systems [*], CP.
8. DATA 3301: Introduction to Data Science [*], CP.
9. DATA 4401: Data Sceince Process and Ethics [*], CP.
10. DATA 4610: Machine Learning I [*], CP.
11. DATA 4620: Machine Learning II [*], CP.
12. DATA 4950: Data Science Capstone [*], CP.

Prior to Semester Conversion

1. CSC 310/CSC 304: Computers For Poets: Software Engineering For All, CP, (taught Winter 2020 as CSC 310).
2. CSC 566: Advanced Data Mining, CP, (taught Spring 2017).
3. DATA 451: Data Science Capstone I, CP, (taught Winter 2017).
4. DATA 452: Data Science Capstone II, CP, (taught Spring 2018).
5. DATA 401: Data Science, CP, (taught Fall 2016); revised in 2020 (original course split into DATA 401, DATA 402, and DATA 403).
6. DATA 301: Introduction to Data Science, CP, (taught Spring 2016).
7. CSC 369: Distributed Computing, CP, (taught Winter 2016).
8. CSC 560: Advanced Topics in Database Systems: Modern DB Architectures, CP (taught Fall 2012).
9. CSC 448: Bioinformatics Algorithms, CP (taught Spring 2012).
10. CSC 570: Special Topics in CS: Bioinformatics Algorithms, CP (taught Fall 2011).
11. CSC 590: Graduate Thesis Seminar, CP, (taught Fall 2009, Spring 2010, Winter 2011, Fall 2011)
12. CSC 560: Advanced topics in databases: Web Mining, CP, (taught Fall 2009)
13. CSC 466: Knowledge Discovery from Data, CP, (taught Spring 2009, Fall 2010).
14. CS 316: Web Programming, UK, (taught Fall 2005, Spring 2006).
15. Data Mining, UK, (taught Spring 2003, Spring 2004).
16. XML and Management of Semistructured Data, UK, (taught Spring 2005 as CS 685; Fall 2007 as CSC 560 at CP).
17. Information Retrieval, UK, (taught Fall 2001 as CS 585).
18. Advanced Databases, UK (taught Fall 2000 as CS 685).

Teaching: Program and Curriculum Development Activities

As Part of Quarter-to-Semester Conversion

Note: All work done as part of the Quarter-to-Semester transition is ***ongoing***.

1. Part of the team developing the semester version of the Cross-Disciplinary Studies Minor in Data Science, Winter 2022 - present.
2. Part of the team developing B.S. in Data Science degree proposal, Winter 2022 - present.
3. Co-developed semester versions of two B.S. in Computer Science concentrations:
   - Artificial Intelligence and Machine Learning Concentrations
   - Data Engineering Concentration

Prior to Semester Conversion

1. Developed the concept of Cross-Disciplinary Studies Minor at Cal Poly (joint work with Andrew Schaffner, Department of Statistics, Cal Poly), Fall 2013- Spring 2014.

2. Coordinated the development and the proposal of the Cross-Disciplinary Studies Minor in Data Science, Summer 2013- Spring 2015. (joint work with Andrew Schaffner, Department of Statistics, Cal Poly). As part of the Data Science Minor proposal, developed the concepts and the extended course outlines of four courses:

   - DATA 301: Introduction to Data Science
   - DATA 401: Data Science
   - DATA 451: Data Science Capstone I
   - DATA 452: Data Science Capstone II

3. Developed the proposal for the Cross-Disciplinary Studies Minor in Bioinformatics (joint work with Ed Himelblau, Anya Goodman, Theresa Migler, and Franz Kurfess), Fall 2017 – present. As part of the proposal, developed the extended course outlines of two courses:

   - DATA 441: Bioinformatics Capstone I
   - DATA 442: Bioinformatics Capstone II

4. Developed two B.S. in Computer Science concentrations:

   - Artificial Intelligence and Machine Learning Concentration
   - Data Engineering Concentration

Selected Service

Cal Poly Graduate Program Service

- Graduate Committee, Department of Computer Science, California Polytechnic State University.
  - Chair, and graduate advisor, 2011 – Fall 2013, Fall 2014 – Fall 2017.
  - Member, Fall 2007 – Fall 2017.
- College of Engineering Graduate Program Evaluation Response Committee, Fall 2015.
- Graduate Curriculum Subcommittee, Cal Poly Senate Curriculum Committee, Fall 2012- Spring 2013.

Other Cal Poly/Academic Community Leadership Roles

- Peer Review Committee, Tenured Commitee, Computer Science and Software Egnineering Department
  - Chair, Fall 2019 – Spring 2020, Fall 2022 – present.

- CSSE/CENG Coordinator, Cross-Disciplinary Studies Minor in Data Science, Fall 2015 – Spring 2020, Fall 2021 – present.
- Co-organizer (Lead co-organizer in 2019, 2020, 2021), ”Requirements Engineering Cares” (RE CARES), a ”Computing for Social Good” event co-located with the International Conference on Requirements Engineering in which conference attendees worked with local non-profit orgainizations on eliciting requirements, building design, and (post-conference) – a working prototype for a software product the organizations needed: 2018 – present (five events to-date, RE CARES 2023 in the works).
- Program Committee Chair
  - International Conference on Scalable Uncertainty Management (SUM), 2015 (co-chair).

All Service

Service to Academic Community

- Program Committee Chair
  - International Conference on Scalable Uncertainty Management (SUM), 2015 (co-chair).
- Program Committee member
  - Special Track on Uncertainty, Florida Atlantic AI Symposium (FLAIRS), 2004, 2017.
  - ICDE Workshop on XML Schema and Data Management (XSDM), 2005, 2006.
  - ICSE Workship on Mining Software Repositories (MSR), 2005.
  - ACM CIKM Workshop on Web Information and Data Management, (WIDM) 2005, 2012.
  - International Workshop on Traceability in Emerging Forms of Software Engineering, (TEFSE) 2005, 2011, 2013, 2015, 2023.
  - AAAI Conference, 2006, 2007, 2013.
  - International Workshop on Predictive Models in Software Engineerings (PROMISE) 2006, 2007, 2008, 2009.
  - International XML Database Symposium (XSym), 2006.
  - Conference on Information and Knowledge Management (CIKM), 2008, 2009.
  - International Workshop on Management of Uncertain Data (MUD) , 2007 (also co-editor of proceedings), 2008.
  - Hawaii Intenationall Conference on System Sciences, MiniTrack ”Web Information Credibility Analysis”, 2011.
  - ICDE Workshop on Data-Driven Decision Support and Guidance Systems (DGSS), 2012).
  - International Joint Conference on Artificial Intelligence (IJCAI), 2016.
  - ACM SIGCSE, 2020.
  - International Conference on Requirements Engineering (RE), RE NeXT track, 2020.
- Co-organizer (with Jane Hayes, Jennifer Horkoff, Günter Mussbacher, Irit Hadar, Meira Levy), RE Cares’2022 (co-located with International Requirements Engineering Conference (RE’2022)), August 15-20, 2022, Melbourne, Australia. *virtual event*.

- Co-organizer (with Jane Hayes, Jennifer Horkoff, Günter Mussbacher, Irit Hadar, Meira Levy), RE Cares'2021 (co-located with International Requirements Engineering Conference (RE'2021)), September 20-25, 2021, South Bend, IN, USA. *virtual event*.

- Co-organizer (with Jane Hayes, Jennifer Horkoff, Günter Mussbacher, Irit Hadar, Meira Levy), RE Cares'2020 (co-located with International Requirements Engineering Conference (RE'2020)), September 19-24, 2019, Zurich, Switzerland, *virtual event*.

- Co-organizer (with Jane Hayes, Jennifer Horkoff, Günter Mussbacher, Irit Hadar, Meira Levy, Barbara Paech), RE Cares'2019 (co-located with International Requirements Engineering Conference (RE'2019)), September 23-27, 2019, Jeju Island, South Korea.

- Co-organizer (with Jane Hayes, Maleknaz Nayebi, Barbara Paech and Didar Zowghi), RE Cares'2018 (co-located with International Requirements Engineering Conference (RE'2018)), August 20-24, 2018 Banff, Canada.

- Co-organizer, International Workshop on Traceability in Emerging Forms of Software Engineering (TEFSE) Computing Challenge, 2019 (created the Computing Challenge task for event participants).

- Co-organizer (with Jane Hayes, Jane Cleland-Huang), Workshop on Grand Challenges in Traceability, August 4-5, 2006, Fairmont, WV.

- Local Chair, International Symposium on Grand Challenges in Traceability (ISGCT/TEFSE'2007), March 22-23, Lexington, KY.

- Co-organizer, Executive committee member, (with Jane Hayes, Jane Cleland-Huang, Giuliano Antoniol), International Symposium on Grand Challenges in Traceability (GCT'2017), March 2017, Lexington, KY.

- Referee for

  – IEEE Transactions on Software Engineering.
  – ACM Computing Surveys.
  – ACM Transactions on Computational Logic.
  – Empirical Software Engineering.
  – Annals of Mathematics and Artificial Intelligence.
  – ACM Transactions on Database Systems.
  – VLDB Journal
  – Data and Knowledge Engineering.
  – IEEE Transactions on Knowledge and Data Engineering.
  – Theoretical Computer Science.
  – Machine Learning Journal.
  – Journal of AI Research (JAIR).
  – SIGACT News (book reviews).
  – International Conference on Logic Programming (ICLP), 2002.
  – International Conference on Logic Programming and Non-Monotonic Reasoning (LPNMR), 1999.

  - International Conference on Information Systems (ICIS), 1999.
  - International Conference on Extending Database Technology (EDBT), 1999, 2000.
  - ACM SIGMOD Conference, 2001.
  - Conference on Verly Large Databases (VLDB), 2001.
  - International Symposium on Foundations of Information and Knowledge Systems (FOIKS), 2001.
  - International Joint Conference on Artificial Intelligence (IJCAI), 2003.
  - International Conference on Constraint Programming (CP), 2003.
  - FLAIRS, 2005.
  - International Computer Software and Applications Conference (COMPSAC), 2005.
  - XSDM, 2005.
  - International Conference on Uncertainty in AI (UAI), 2005.
  - American Association for AI (AAAI) Conference, 2005.

- Grants Panels
  - panelist (2000 – 2003, 2006, 2007), panel chair (2004–2005), Civilian Research Defense Foundation (CRDF).

    CRDF oversees grants for collaborative research between US and former Soviet Union researchers. Panelist duties included refereeing of 10-20 proposals per panel and panel participation. Panel chair duties included refereeing of 10-20 proposals per panel, participation in panel organization and panel conduct.

University and Department Service

- Peer Review Committee, Tenured Commitee, Computer Science and Software Egnineering Department,
  - Chair, Fall 2019 – Spring 2020, Fall 2022 – present.
  - Member, Fall 2011 – present.
- Cal Poly Strategic Research Initiative Group on Data Science and Analytics:
  - Member, Summer 2020 -Fall 2021.
  - Member, Proto-Governance Board, Winter 2021 - Fall 2021.
  - Coordinator, Educational Initiatives Subcommittee, Winter 2021 - Fall 2021.
- Cal Poly Data Science Task Force, member, Spring 2019 – Fall 2019.
- Cross-Disciplinary Studies Minor in Data Science coordinator for Department of Computer Science and Software Engineering (and CENG), Fall 2015 – Spring 2020, Fall 2021 – present (co-coordinator with Jonathan Ventura).
- Cross-disciplinary Studies Minor in Data Science Curriculum Committee, Fall 2014 - present.
- Member, Dignity Health – Cal Poly Joint Collaboration Committee, Fall 2014 – Spring 2016.

- Faculty Search Committee, Department of Computer Science (and Software Engineering)
  - Fall 2022 – Spring 2023: Member, EEF (EDI Search)
  - Fall 2021 – Spring 2022: Chair (Software Engineering search)
  - Fall 2018 – Spring 2019: Chair (Bioinformatics search)
  - Fall 2017 – Spring 2018: Chair (General search)
  - Fall 2014 – Spring 2015: Chair (Data Science search)
  - Fall 2013 – Spring 2013: Member (Software Engineering/Data Science search)
- Graduate Committee, Department of Computer Science, California Polytechnic State University.
  - Chair, and graduate advisor, 2011 – Fall 2013, Fall 2014 – Fall 2017.
  - Member, Fall 2007 – Fall 2017.
- College of Engineering Graduate Program Evaluation Response Committee, Fall 2015.
- Graduate Curriculum Subcommittee, Cal Poly Senate Curriculum Committee, Fall 2012- Spring 2013.
- Consultant for Interim VP for Research, Cal Poly, Summer 2013
  - Design of a framework for interdisciplinary educational experiences at Cal Poly.
  - Design of a Data Science minor between Computer Science and Statistics programs.
- Student Club Advising
  - CS + Social Good, faculty co-advisor (with Jane Lehr), Winter 2020 – present.
  - Graduate Student Association (GSA), Computer Science Department, faculty advisor, Fall 2011 – Fall 2017.
  - Cal Poly Ignite Club, faculty advisor, Fall 2010 – Spring 2020.
  - Cal Poly Cardistry and Magic club, Fall 2017 - Spring 2019.
- Professional Leave Committee, Computer Science Department, Fall 2011 – present.
- University Senate Committee on International Program Approval Process, Winter 2012 – Spring 2012.
- University Learning Objectives (ULO) Committee on Oral Communication, Winter 2010 – Spring 2011.
  - Developed a rubric for evaluating oral communication proficiency among students.
- Computer Science Week of Welcome Committee, California Polytechnic State University, Fall 2010 – Fall 2012.
  - Fall 2012 Week of Welcome CS/SE Ignite session (September 13, 2012)
  - Fall 2011 Week of Welcome CS/SE Ignite session (September 14, 2011)
  - Fall 2010 Week of Welcome CS/SE Ignite session (September 15, 2010)
- Colloquium Committee, Department of Computer Science, California Polytechnic State University, Fall 2008 – present.

- Project-Based Learning Task Force, California Polytechnic State University, Winter 2008 – Spring 2008.
    - Prepared report on project-based learning at Cal Poly for the office of the Provost.
- Graduate Student Committee, Department of Computer Science, University of Kentucky, Fall 2002 - Spring 2004.
- University Electronic Thesis Committee, University of Kentucky, Fall 2001 - Fall 2004.
- Departmental Report/Newsletter Committee, Department of Computer Science, University of Kentucky, Fall 2000 – Fall 2001, Fall 2003 – Spring 2004, Spring 2005 - Fall 2005. Reports/Newsletters co-edited (with Andy Klapper):
    - Departmental Newsletter, Spring/Summer 2005, Fall 2005.
    - Departmental Report, Spring 2004.
    - Departmental Report, Fall 2001.
- Student advisor on graduate admissions, Department of Computer Science, University of Maryland, 1999.
- Member of Graduate Student Executive Council, Department of Computer Science, University of Maryland, 1997 - 1999.
- Other activities
    - Volunteer reviewer, NCWIT, Fall 2012.
    - Volunteer session coordinator, National Undergraduate Research Conference (NCUR 2001), Spring 2001.
- Association Membership
    - Member, IEEE Computer Society, since 2006.
    - Member, Association for Computing Machinery, since 2000.
    - Member, ACM SIGMOD, ACM KDD, ACM SIGIR, since 2000.
    - Member, American Association for Artificial Intelligence, since 1999.
    - Member, Association for Logic Programming, since 1997.

Professional Consulting

- Provided consulting services in the areas of database design and development, data mining and machine learning, recommendation system construction and data science to a number of technology companies.
- Technical Advisor, Bottlefly, Inc. (Tastry, Inc.), 2015 – present.
- Sentimetrix, Inc, 2014 - 2018 (present relationship with Sentimetrix, Inc is via joint funded research projects).
- FastPath, Inc, 2016 – present (co-founder).

Advisors

Ph.D. Advisor. V.S. Subrahmanian, Department of Computer Science, University of Maryland at College Park.

Ph. D. Thesis: Reasoning with Probabilities and Time.

Undergraduate Advisor. Mikhail A. Taitslin (1936– 2013), Department of Computer Science, School of Applied Mathematics and Cybernetics, Tver State University, Tver, Russia.

Undergraduate Thesis: Multiplicative Linear Logic for Resource Transformation Nets.