

CURRICULUM VITAE

Michael Haungs¹

<http://www.csc.calpoly.edu/~mhaungs>

Department of Computer Science

California Polytechnic State University

San Luis Obispo, CA 93407

Research Interests:

My research interests include operating systems, networking, game design and programming, and distributed systems. Current efforts are in the identification and elimination of I/O bottlenecks in distributed systems.

Education:

Ph.D., Computer Science, September 2002

University of California, Davis

M.S., Computer Science, May 1998

Clemson University

B.S., Industrial Engineering & Operations Research, May 1992

University of California, Berkeley

Academic Experience:

California Polytechnic State University September 2003-Present
Assistant Professor, Department of Computer Science. Developed and taught Introduction to Interactive Entertainment (lower-division), Fundamentals of Computer Science I (lower-division), Systems Programming I (lower-division), Communication Networks I (upper-division), Operating Systems I (upper-division), Operating Systems II (upper-division), and Advanced Operating Systems (graduate-level).

University of California, Davis Fall 2002–Spring 2003
Lecturer for Introduction to Programming and Problem Solving (lower-division), Computer Architecture I (upper-division), and Computer Architecture II (upper-division)

University of California, Davis Winter 2000
Teaching Assistant for Introduction to Programming and Problem Solving (lower-division).

University of California, Davis Fall 1999
Teaching Assistant for Advanced Computer Architecture (graduate-level).

University of California, Davis Summer 1999
Teaching Assistant for Introduction to Software Development (lower-division).

¹work: (805)756-5531, fax: (805)756-2956, email: mhaungs@calpoly.edu

Publications:

1. Brian A. Malloy, **Michael L. Haungs**, and Mark Smotherman, “The Construction of a Family of Simulators for the Intel Architecture with ELF Binary Input,” *Proceedings of the 13th European Simulation Multi-conference*, June 1-4, 1999, Warsaw Poland. Pages 77 – 84.
2. **Michael Haungs**, Phil Sallee, and Matthew Farrens, “Branch Transition Rate: A New Metric for Improved Branch Classification Analysis,” *Proceedings of the Sixth International Symposium on High-Performance Computer Architecture (HPCA-6)*, January 8-12, 2000, Toulouse, France. Pages 241 – 250.
3. **Michael Haungs** and Diana Keen, “A Case for Active Component Systems,” *2000 UC Davis Student Workshop on Computing*, Davis, California, 2000.
4. **Michael Haungs**, Raju Pandey, Earl Barr, and Fritz Barnes, “Migrating Sockets: Bridging the OS Primitive/Internet Application Gap”, Technical Report CSE-2001-10, University of California, Davis, March 2001.
5. Earl Barr, Raju Pandey, and **Michael Haungs**, “MAGE: A Distributed Programming Model”, International Conference on Distributed Computing Systems (ICDCS 2001), April 2001
6. **Michael Haungs**, “Providing Network Programming Primitives for Internet Application Construction”, *PhD Dissertation*, Computer Science Department, University of California, Davis, September 2002.
7. **Michael Haungs**, Fritz Barnes, Earl Barr, and Raju Pandey, “A Fast Connection-Time Redirection Mechanism for Internet Application Scalability”, International Conference on High Performance Computing (HiPC 2002), December 18-21 2002, Bangalore, India.
8. **Michael Haungs**, Raju Pandey, and Earl Barr, “Handling Catastrophic Failures in Scalable Internet Applications”, International Symposium on Applications and the Internet (SAINT 2004), January 26-30 2004, Tokyo, Japan.
9. Rollin Strohman, **Michael Haungs**, Tom Mastin, and Paul Weckler. “Rapid Delivery of Massive Geospatial Data over Internet2”, ASPRS 2005 Annual Conference, March 7-11, 2004, Baltimore, Maryland.
10. **Michael Haungs**, Brett Cannon, Rollin Strohman, and Paul Weckler, “Rapid Delivery of Massive Geospatial Data over Internet2”, Fall 2004 Internet2 Member Meeting, September 27-30, 2004, Austin, Texas.
11. **Michael Haungs** and Rollin Strohman, “Experiences Delivering Massive Geospatial Datasets for Educational Use”, Spring 2005 Internet2 Member Meeting, May 2-4, 2005, Arlington, Virginia.
12. **Michael Haungs** and Rollin Strohman, “Integrating and Delivering Massive Geospatial Datasets for Educational Use”, CENIC 2005, March 7-9, 2005, Marina Del Rey, California.
13. Jeff Bergamini and **Michael Haungs**, “Geotorrent: Optimizing GIS Web Services for Interactive Educational Use”, UCGIS Summer 2006 Assembly, June 28-July 1, 2006, Vancouver, Washington.
14. Jeff Bergamini and **Michael Haungs**, “Enabling P2P Cooperative WMS Proxy Caching and Prefetching in an Educational Environment”, 10th AGILE International Conference on Geographic Information Science, May 8-May 11, 2007, Aalborg, Denmark.
15. Mark Gabel and **Michael Haungs**, “CAMP: A Common API for Measuring Performance”, 21st Large Installation Administration Conference (LISA '07), Nov 11-Nov 16, 2007, Dallas, Texas.

16. **Michael Haungs**, John Clements, and David Janzen, “Improving Engineering Education through Creativity, Collaboration, and Context In a First Year Course”, American Society for Engineering Education (ASEE) Annual Conference, June 22-26, 2008, Pittsburgh, PA.

Related Professional Experience:

Consultant(Mar 2001–Nov 2001) *MarketAxess, New York*

A senior programmer position to help in the design and implementation of an Enterprise software solution that manages financial transactions, such as bond trading. Specifically, worked on the scalability, consistency, and timeliness of the system.

Research Assistant(July 1999–Sep 2002) *University of California, Davis*

Research Assistant for Raju Pandey. Worked on various projects including: MAGE, RedSocks, and Active Component Systems.

System Administrator(Aug 1998–May 2000) *University of California, Davis*

Help support the Computer Science department network and systems. The network consists of SPARC-SOLARIS, HPUX, IRIX, INTEL, and DEC workstations.

System Administrator(Sep 1996–May 1998) *Clemson University*

Two year graduate student assistantship to help support the Computer Science department’s Sun Network. The network consists of 150+ SUNOS, SPARC-SOLARIS, and x86-SOLARIS workstations.

Design Engineer(Aug 1993–Apr 1996) *Pacific Bell, Valley Regional Markets*

Design and draft the technical drawings required to build a reliable telecommunications network capable of meeting the demands of both business and residence customers. Team with construction, maintenance, and marketing forces to solve complex network problems.

Programmer/Analyst(Jan 1992–May 1992) *University of California, Berkeley*

Programmer/Analyst for Max Mendel. Assisted in designing and programming an automated lab. The project consisted of creating a user interface for Computer Numerically Controlled (CNC) machines.

Advisor(May 1991–Aug 1991) *Pacific Bell, Valley Regional Markets*

Conducted time flow and motion studies for the Construction department and analyzed the job flow system between the Construction and Engineering departments. Using this information, wrote a report containing fully data supported recommendations to improve the quality and efficiency of the entire job flow system.

Systems Programmer(May 1990–Aug 1990) *Argos Software, Fresno CA*

Co-designed and programmed a multi-functional screen manager used by the company’s programmers to create all the interfaces for their software products. Trained technical documentation personnel.

Awards:

- Gary Bloom Fellowship Recipient, 2005-2006
- Computer Science Professor of the Year, 2004-2005
- Gary Bloom Fellowship Recipient, 2004-2005
- GAANN (Government Aid in Areas of National Need) Fellowship, 1999-2002

Professional Activities:

Gifts

- **Michael Haungs**, Zoe Wood, and Franz Kurfess, HP Technology for Teaching Grant, 2008
- **Michael Haungs** and Diana Franklin, Google Curriculum Development Grant, April 2007

Grants

- **Michael Haungs**, “Enabling Teachers Create Classroom Lessons with Massive Geospatial Datasets”, State Faculty Support Grant, February 2007
- **Michael Haungs**, “Integrating Massive Geospatial Datasets for Educational Use”, State Faculty Support Grant, January 2005
- **Michael Haungs**, “Enhancing and Optimizing a Testbed for Internet2 Application Construction”, Internet2 Mini-Grant Phase III, California Polytechnic State University, November 2004
- **Michael Haungs**, Rollin Strohman, and Tom Mastin, “Rapid Delivery of Massive Geospatial Data over Internet2”, C3RP 2003-2004, Department of the Navy, Office of Naval Research, under Award #N00014-04-1-0436.
- **Michael Haungs**, “Building a Testbed for Internet”, Internet2 Mini-Grant Phase II, California Polytechnic State University, 2004

Invited Talks

- **Michael Haungs**, John Clements, and David Janzen, “Improving Engineering Education through Creativity, Collaboration, and Context In a First Year Course”, Engineering Design Graphics Division (EDGD), ASEE, January 4-7, 2009, Berkeley, CA.
- **Michael Haungs**, *Experiences Delivering Massive Geospatial Datasets for Educational Use*, NJIT Internet2 Day, April 22, 2005, Newark, NJ.

Professional Memberships

- Special Interest Group on Computer Science Education (SIGCSE)
- Association for Computing Machinery (ACM)
- Special Interest Group on Operating Systems (SIGOPS)

University Service:

- Faculty Advisor to the CalPoly ACM student chapter, 2003-Present
- Computer Science Department Curriculum Committee, 2006 – Present
- Computer Science Department Fairness Board Committee, 2005-Present
- Computer Science Department First Year Assessment Committee, 2005-Present
- Computer Science Department Lab Planning Committee, Spring 2004

References available on request