# **Computer Science**

Reza Rejaie, Department Head

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Computer science, the study of computation, offers students the challenge and excitement of a dynamically evolving science whose discoveries and applications affect every aspect of modern life. Computer science is a rich intellectual field where practitioners apply a computational approach to address a wide variety of interesting and challenging problems. Computer scientists are engaged in research in core areas of theoretical computer science, computer systems design, algorithms, and programming languages, as well as more application-oriented areas such as databases and networking.

#### **Faculty**

Zena M. Ariola, professor (programming languages, lambda calculus, logic). BS, 1980, Pisa; PhD, 1992, Harvard. (1992)

Hank Childs, professor (scientific visualization, high-performance computing, computer graphics). BS, 1999, PhD, 2006, California, Davis. (2013)

Jee W. Choi, assistant professor (high-performance computing, scientific computation, data analytics). BS, 2000, PhD, 2015, Georgia Institute of Technology. (2019)

Phil Colbert, instructor (education, healthcare, environmental sciences, IoT, full stack development, CIT Minor). BS, 1990 CSU Chico; MS, 2008, CSU Chico. (2014)

Dejing Dou, professor (artificial intelligence, data mining, natural language processing). BE, 1996, Tsinghua; MS, 2000, PhD, 2004, Yale. (2004)

Brittany Erickson, assistant professor (scientific computing, computational seismology, high performance computing). BS, 2004, MS, 2006, PhD, 2010, California, Santa Barbara. (2018)

Ramakrishnan Durairajan, assistant professor (computer networking, multi-cloud computing, Internet data science, programmable optics, cybersecurity). BS, 2010, College of Engineering, Guindy; MS, 2014, PhD, 2017, Wisconsin, Madison. (2017)

Stephen F. Fickas, professor (software engineering, formal modeling of distributes systems, digital humanities). BS, 1971, Oregon State; MS, 1973, Massachusetts; PhD, 1983, California, Irvine. (1983)

Kathleen Freeman Hennessy, senior instructor; director of undergraduate studies. BS, 1982, Bucknell; PhD, 1993, Oregon. (2011)

Anthony J. Hornof, professor (human-computer interaction, assistive technology, cognitive modeling). BA, 1988, Columbia; MS, 1996, PhD, 1999, Michigan. (1999)

Lei Jiao, assistant professor (networking and distributed computing, performance modeling and evaluation, algorithm design and application).

BS, 2007, MS, 2010, Northwestern Polytechnical; PhD, 2014, Göttingen. (2016)

Jun Li, professor (computer and network security, network architectures and protocols, distributed systems). BS, 1992, Peking; ME, 1995, Chinese Academy of Sciences; MS, 1998, PhD, 2002, California, Los Angeles. (2002)

Yingjiu (Joe) Li, professor (cyber security and privacy). BS, 1990, Dalian University of Technology; PhD, 2003, George Mason University. (2019)

Daniel Lowd, associate professor (machine learning, data mining, artificial intelligence). BS, 2003, Harvey Mudd College; MS, 2005, PhD, 2010, Washington (Seattle). (2009)

Allen D. Malony, professor (parallel processing, performance evaluation, neuroinformatics). BS, 1980, MS, 1982, California, Los Angeles; PhD, 1990, Illinois, Urbana-Champaign. (1991)

Thanh H. Nguyen, assistant professor (artificial intelligence, multi-agent systems, machine learning). BS, 2010, Hanoi University of Science and Technology; PhD, 2016, University of Southern California. (2018)

Thien Huu Nguyen, assistant professor (natural language processing, data mining, machine learning, artificial intelligence). BE, 2011, HUST, Hanoi; MS, 2014, PhD, 2018, NYU, New York. (2018)

Boyana Norris, associate professor (high-performance computing, compilers, performance analysis and optimization, software engineering, data science). BS, 1995, Wake Forest; PhD, 2000, Illinois, Urbana-Champaign. (2013)

Reza Rejaie, professor (computer networks, networked systems, Internet measurement). BS, 1991, Sharif University of Technology; MS, 1996, PhD 1999, Southern California. (2002)

Humphrey Shi, assistant professor (Computer Vision, Machine Learning, AI Systems & Applications). BS, 2005, Tsinghua University; PhD, 2017, University of Illinois at Urbana-Champaign. (2019)

Joseph Sventek, professor (complex event processing, Internet of Things). BS, 1973, Rochester; PhD, 1979, California, Berkeley. (2014)

Dave Wilkins, instructor. BA, 1965, Whitman College; MS, 1971, Oregon. (2010)

Eric D. Wills, senior instructor. BS, 2000, MS, 2002, PhD, 2008, Oregon. (2010)

Christopher B. Wilson, associate professor (computational complexity, models of computation). BS, 1978, Oregon; MS, 1980, PhD, 1984, Toronto. (1984)

Michal Young, associate professor (software engineering, software test and analysis). BA, 1983, Oregon; MS, 1985, PhD, 1989, California, Irvine. (1997)

#### **Emeriti**

Sarah A. Douglas, professor emerita. AB, 1966, California, Berkeley; MS, 1979, PhD, 1983, Stanford. (1983)

Arthur M. Farley, professor emeritus. BS, 1968, Rensselaer Polytechnic Institute; PhD, 1974, Carnegie-Mellon. (1974)

Michael Hennessy, senior instructor. BS, 1982, MS, 1984, Oregon. (1984)

Virginia M. Lo, associate professor emerita. BA, 1969, Michigan; MS, 1977, Pennsylvania State; PhD, 1983, Illinois, Urbana-Champaign. (1984)

Eugene M. Luks, professor emeritus. BS, 1960, City University of New York, City College; PhD, 1966, Massachusetts Institute of Technology. (1983)

Andrzej Proskurowski, professor emeritus. MS, 1967, Warsaw University of Technology; PhD, 1974, Royal Institute of Technology, Stockholm. (1975)

Kent A. Stevens, professor emeritus. BS, 1969, MS, 1971, California, Los Angeles; PhD, 1979, Massachusetts Institute of Technology. (1982)

The date in parentheses at the end of each entry is the first year on the University of Oregon faculty.

#### **Affiliated Faculty**

Sameer Shende, research associate professor and director, Performance Research Laboratory (performance evaluation tools, programming models, software stack for HPC and Al/ML). BTech, 1991, IIT Bombay; MS, 1996, PhD 2001, University of Oregon. (2001)

### **Participating**

Heidi Kaufman, English

Amy K. Lobben, geography

Marc Schlossberg, planning, public policy and management

McKay M. Sohlberg, special education and clinical sciences

Sanjay Srivastava, psychology

Jeffrey Stolet, music

Don M. Tucker, psychology

# **Undergraduate Programs**

# Major - Bachelor's Degree

- Computer Science (BA/BS) (http://catalog.uoregon.edu/ arts-sciences/natural-sciences/computer-sci/ug-computerscience/)
- Cybersecurity (BS) (http://catalog.uoregon.edu/artssciences/natural-sciences/computer-sci/bs-cybersecurity/)
- Mathematics and Computer Science (BA/BS) (http:// catalog.uoregon.edu/arts-sciences/natural-sciences/ mathematics/ug-math-computer-sci/)

#### **Minors**

- Computer Information Technology (http:// catalog.uoregon.edu/arts-sciences/natural-sciences/ computer-sci/min-comp-info-tech/)
- Computer Science (http://catalog.uoregon.edu/artssciences/natural-sciences/computer-sci/min-computerscience/)

# **Graduate Programs**

#### Major - Master's Degree

 Computer Science (MS) (http://catalog.uoregon.edu/artssciences/natural-sciences/computer-sci/ms-computerscience/)

#### **Major - Doctoral Degree**

 Computer Science (PhD) (http://catalog.uoregon.edu/artssciences/natural-sciences/computer-sci/phd-computerscience/)