

# DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Computing devices are all around us and computer algorithms support almost every aspect of our daily activities, decisions, and transactions. Our majors are at the center of these exciting activities; in envisioning new forms of services, in applications to address existing or emerging needs, in formulation and evaluation of algorithms to build the necessary computer and networking systems, and in development of the necessary software infrastructures to deploy the resulting solutions. In this, they rely on skills learned in our degree programs; skills that include algorithm design and analysis, programming languages, computer system design, artificial intelligence and machine learning, graphics, human-computer interaction, and many more. Our graduates are found in a wide range of industries, both public and private, reflecting the ubiquity of computing in society.

The Department of Computer Science and Engineering prepares our students to become computing experts who are equipped to address the many and varying challenges that they will encounter in their careers. We offer three degree programs, which are designed to address a variety of student goals and industry demands.

## Mission

The mission of the Department of Computer Science is to develop the human and intellectual resources needed to meet the future technological challenges in the field of computing. This includes developing computer scientists and computer engineers for positions of leadership in industry, government, and academia.

## BS in Computer Science

The curriculum in Computer Science is designed to prepare students to enter the rapidly expanding computer field. Curricula and courses are based upon recommendations by the Institute of Electrical and Electronic Engineering Computer Society and the Association for Computing Machinery. The Computer Science program is accredited by the Computing Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

## BS in Computer Engineering

The Computer Engineering curricula provide a balanced view of hardware, software, hardware-software trade-offs, analysis, design, and implementation techniques. It is a dynamic and broadly interdisciplinary field that continues to experience rapid growth that impacts every area of human endeavor. The Computer Engineering program is accredited by the Engineering Accreditation Commission of ABET, [www.abet.org](http://www.abet.org).

## BA in Computing

The Bachelor of Arts in Computing allows students to couple foundational skills in computing, both theoretical and practical, with a sound knowledge of an intersecting area of interest.

## Faculty

Akleman, Ergun, Professor  
Computer Science & Engineering  
PHD, Georgia Institute of Technology, 1992

Andersen, Flemming, Adjunct Professor of Practice  
Computer Science & Engineering  
PHD, Technical University of Denmark, 1995

Bettati, Riccardo, Professor  
Computer Science & Engineering  
PHD, University of Illinois, 1994

Botacin, Marcus, Visiting Assistant Professor  
Computer Science & Engineering  
PHD, Federal University of Paraná (UFPR), 2021

Budimlic, Zoran, Instructional Associate Professor  
Computer Science & Engineering  
PHD, Rice University, 2001

Carlisle, Martin, Professor of the Practice  
Computer Science & Engineering  
PHD, Princeton University, 1993

Caverlee, James B, Professor  
Computer Science & Engineering  
PHD, Georgia Institute of Technology, 2007

Chaspari, Theodora, Assistant Professor  
Computer Science & Engineering  
PHD, University of Southern California, 2017

Chen, Jianer, Professor  
Computer Science & Engineering  
PHD, Columbia University, 1987

Choe, Yoonsuck, Professor  
Computer Science & Engineering  
PHD, The University of Texas at Austin, 2001

Crawford, Victoria, Assistant Professor  
Computer Science & Engineering  
PHD, University of Florida, 2022

Da Silva, Dilma M, Professor  
Computer Science & Engineering  
PHD, Georgia Institute of Technology, 1997

Davis, Timothy A, Professor  
Computer Science & Engineering  
PHD, University of Illinois at Urbana-Champaign, 1989

Dewitte, Paula S, Professor of the Practice  
Computer Science & Engineering  
JD, St. Mary's University School of Law, 2008  
PHD, Texas A&M University, 1989

Duffield, Nicholas G, Professor  
Computer Science & Engineering  
PHD, Queen Mary College, Univ. of London, 1987

Duysak, Alpaslan, Instructional Associate Professor  
Computer Science & Engineering  
PHD, Bournemouth University, 2004

Furuta, Richard K, Professor Emeritus  
Computer Science & Engineering  
PHD, University of Washington, 1986

Garay, Juan A, Professor  
Computer Science & Engineering  
PHD, The Pennsylvania State University, 1989

Garcia, Christiana, Instructional Assistant Professor  
Computer Science & Engineering  
PHD, Texas A&M University, 2022

Gratz, Paul V, Professor  
Computer Science & Engineering  
PHD, The University of Texas at Austin, 2008

Gu, Guofei, Professor  
Computer Science & Engineering  
PHD, Georgia Institute of Technology, 2008

Gutierrez-Osuna, Ricardo, Professor  
Computer Science & Engineering  
PHD, North Carolina State University, 1998

Hamilton, John, Professor  
Computer Science & Engineering  
PHD, Texas A&M University, 1996

Hammond, Tracy A, Professor  
Computer Science & Engineering  
PHD, Massachusetts Inst of Technology, 2007

Houngninou, David Kebo, Instructional Assistant Professor  
Computer Science & Engineering  
PHD, Southern Methodist University, 2017

Hu, Jiang, Professor  
Computer Science & Engineering  
PHD, University of Minnesota, 2001

Huang, Ruihong, Associate Professor  
Computer Science & Engineering  
PHD, University of Utah, 2014

Huang, Shaoming, Associate Professor  
Computer Science & Engineering  
PHD, Hong Kong University of Science and Technology, 2012

Ioerger, Thomas R, Professor  
Computer Science & Engineering  
PHD, University of Illinois, 1996

Jafari, Roozbeh, Professor  
Computer Science & Engineering  
PHD, University of California, Los Angeles, 2006

Ji, Shuiwang, Professor  
Computer Science & Engineering  
PHD, Arizona State University, 2010

Jiang, Anxiao, Professor  
Computer Science & Engineering  
PHD, California Institute of Technology, 2004

Jimenez, Daniel A, Professor  
Computer Science & Engineering  
PHD, The University of Texas at Austin, 2002

Kerne, Andrew, Professor  
Computer Science & Engineering  
PHD, New York University, 2001

Keyser, John C, Professor  
Computer Science & Engineering  
PHD, University of North Carolina at Chapel Hill, 2000

Khademi Kalantari, Nima, Assistant Professor  
Computer Science & Engineering  
PHD, University of California Santa Barbara, 2015

Kim, Eun J, Associate Professor  
Computer Science & Engineering  
PHD, Pennsylvania State University, 2003

Kim, Jeeun, Assistant Professor  
Computer Science & Engineering  
PHD, University of Colorado - Boulder, 2019

Klappenecker, Andreas, Professor  
Computer Science & Engineering  
PHD, Universitat Karlsruhe, 1998

Krishnamurthy, Vinayak, Associate Professor  
Computer Science & Engineering  
PHD, Purdue University, 2015

Kuhnle, Alan, Assistant Professor  
Computer Science & Engineering  
PHD, University of Florida, 2018

Kum, Hye Chung, Professor  
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PHD, University of North Carolina at Chapel Hill, 2004

Kumar, Sandeep, Associate Professor of Practice  
Computer Science & Engineering  
PHD, Purdue University, 1995

Lee, Hyunyoung, Senior Lecturer  
Computer Science & Engineering  
PHD, Texas A&M University, College Station, 2021  
PHD, Texas A&M University, 2001

Leyk, Teresa S, Instructional Professor  
Computer Science & Engineering  
PHD, Australian National University, 1998

Lightfoot, Robert H, Associate Professor of the Practice  
Computer Science & Engineering  
MS, Southern Methodist University, 1995

Liu, Jyh C, Professor  
Computer Science & Engineering  
PHD, University of Michigan at Ann Arbor, 1989

Loguinov, Dmitri, Professor  
Computer Science & Engineering  
PHD, City University of New York, 2002

Lupoli, Shawn V, Instructional Assistant Professor  
Computer Science & Engineering  
MS, Towson University, 2004

Mahapatra, Rabinarayan, Professor  
Computer Science & Engineering  
PHD, Indian Institute of Technology, Kharagpur, 1992

McGuire, Timothy, Instructional Professor  
Computer Science & Engineering  
PHD, Texas A&M University, 1991

McNamara, Ann, Associate Professor  
Computer Science & Engineering  
PHD, University of Bristol, UK, 2000

Moore, John Michael, Instructional Assistant Professor  
Computer Science & Engineering  
PHD, Texas A&M University, 2013  
PHD, Texas A&M University, 2007

Mortazavi, Jack B, Assistant Professor  
Computer Science & Engineering  
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Murphy, Robin R, Professor  
Computer Science & Engineering  
PHD, Georgia Institute of Technology, 1992

Muzahid, Abdullah, Assistant Professor  
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PHD, University of Illinois at Urbana-Champaign, 2012

Narayanan, Krishna R, Professor  
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Nguyen, Khanh, Assistant Professor  
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PHD, University of California, Los Angeles, 2019

O'Kane, Jason, Professor  
Computer Science & Engineering  
PHD, University of Illinois, Urbana-Champaign, 2007

Pearce, Olga, Adjunct Associate Professor of Practice  
Computer Science & Engineering  
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Pearce, Roger, Adjunct Associate Professor of Practice  
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Qian, Xiaoning, Professor  
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PHD, Yale University, 2005

Quinn, Michael D, Associate Professor of the Practice  
Computer Science & Engineering  
MS, University of Southern California at Los Angeles, 1978

Ritchey, Philip C, Instructional Associate Professor  
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PHD, Purdue University, 2015

Rojas, Joseph, Professor  
Computer Science & Engineering  
PHD, University of California at Berkeley, 1995

Sarin, Vivek, Associate Professor  
Computer Science & Engineering  
PHD, University of Illinois, 1997

Saxena, Nitesh, Professor  
Computer Science & Engineering  
PHD, University of California - Irvine, 2006

Schaefer, Scott D, Professor  
Computer Science & Engineering  
PHD, Rice University, 2006

Shakkottai, Srinivas, Professor  
Computer Science & Engineering  
PHD, University of Illinois, 2007

Sharon, Guni, Assistant Professor  
Computer Science & Engineering  
PHD, Ben-Gurion University, 2015

Shell, Dylan A, Associate Professor  
Computer Science & Engineering  
PHD, University of Southern California, 2008

Shen, Yang, Associate Professor  
Computer Science & Engineering  
PHD, Boston University, 2008

Shipman III, Frank M, Professor  
Computer Science & Engineering  
PHD, University of Colorado, 1993

Song, Dezhen, Professor  
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Stoleru, Radu, Professor  
Computer Science & Engineering  
PHD, University of Virginia, 2007

Sueda, Shinjiro, Assistant Professor  
Computer Science & Engineering  
PHD, University of British Columbia, 2010

Sze, Sing H, Associate Professor  
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PHD, University of Southern California, 2000

Taele, Paul, Instructional Assistant Professor  
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Thomas, Shawna, Instructional Assistant Professor  
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PHD, Texas A&M University, 2010

Tsai, Chia-Che, Assistant Professor  
Computer Science & Engineering  
PHD, Stony Brook University, 2017

Tyagi, Aakash, Professor of the Practice  
Computer Science & Engineering  
PHD, University of Louisiana, 1993

Veldt, Luke, Assistant Professor  
Computer Science & Engineering  
PHD, Purdue University, 2019

Wade, Pauline, Associate Professor of the Practice  
Computer Science & Engineering  
MS, Columbia University, 1991

Walker, Duncan M, Professor  
Computer Science & Engineering  
PHD, Carnegie Mellon University, 1986

Wang, Wenping, Professor  
Computer Science & Engineering  
PHD, University of Alberta, 1992  
PHD, University of Alberta, Canada, 1992

Welch, Jennifer L, Professor Emeritus  
Computer Science & Engineering  
PHD, Massachusetts Institute of Technology, 1988

Yang, Tianbao, Associate Professor  
Computer Science & Engineering  
PHD, Michigan State University, 2012

Yum, Ki H, Senior Lecturer  
Computer Science & Engineering  
PHD, The Pennsylvania State University, 2002

Zhang, Yupeng, Assistant Professor  
Computer Science & Engineering  
PHD, University of Maryland - College Park, 2018

## Majors

- Bachelor of Arts in Computing (<http://catalog.tamu.edu/undergraduate/engineering/computer-science/computing-ba/>)
- Bachelor of Science in Computer Engineering (<http://catalog.tamu.edu/undergraduate/engineering/computer-science/computer-engineering-bs/>)
- Bachelor of Science in Computer Science (<http://catalog.tamu.edu/undergraduate/engineering/computer-science/bs/>)

## Minors

- Computer Science Minor (<http://catalog.tamu.edu/undergraduate/engineering/computer-science/minor/>)
- Game Design and Development Minor (<http://catalog.tamu.edu/undergraduate/engineering/computer-science/game-design-development-minor/>)

## Certificates

- Cyber Operations Certificate (<http://catalog.tamu.edu/undergraduate/engineering/computer-science/cyber-operations-certificate/>)