COLLEGE OF ENGINEERING
School of Electrical, Computing & Software Engineering

GRADUATE STUDIES

Harnessing the entrepreneurial spirit

Researchers patent inventions by the dozens every year and create startups to market their products.

Research Focus Areas

- Artificial intelligence and machine learning
- Autonomous systems, communications and robotics
- Biomedical technologies
- Circuits, microelectronics and very-large-scale integration
- Communications, coding and information theory
- Computer architecture and cloud/distributed computing
- Optics, photonics and terahertz devices and systems
- Quantum Information Science and Engineering
- Signal, image and video processing
- Software engineering and embedded systems
- Wireless networking, security and systems

Centers & Institutes

- Arizona Research Institute for Solar Energy
- Broadband Wireless Access Center
- Center for Quantum Networks
- Center to Stream Healthcare In Place
- Cloud & Autonomic Computing Center
- Wireless Innovation towards Secure, Pervasive, Efficient & Resilient Next G Networks

Job Placement

- Amazon
- Apple
- IBM
- Intel
- Microsoft
- Qualcomm
- Raytheon Technologies
- Texas Instruments

Top 20

U. S. public research institution
(National Science Foundation and Times Higher Education)

Top 25

computer engineering graduate programs
(U.S. News & World Report, public school rankings)

"You get to be a part of the research. It's not just something you take part in. You get to own your piece of it."

- Ian Patrick Armstrong, ECE BS and MS graduate

Grad Degree Programs

PhD
- Computer Science & Engineering
- Electrical & Computer Engineering
- Software Engineering

MS (online options)
- Computer Science & Engineering
- Electrical & Computer Engineering
- Software Engineering

Application Deadlines

Fall Semester
Main Campus priority deadline - December 1
Online Campus - August 6

Spring Semester
Main Campus - August 15
Online Campus - December 15

Contacts

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Faculty Expertise

Mai Abdel-Malek – mmalek@arizona.edu
logic design • programming languages • wireless communication

Tosiron Adegbija – tosiron@arizona.edu
high-performance embedded computing • low-power embedded systems design

Ali Akoglu – akoglu@arizona.edu
high-performance computing • reconfigurable computing • adaptive hardware systems

Ehsan Azimi – eazimi@arizona.edu
medical robotics • augmented reality • human computer interaction • immersive learning control

Boulat Bash – boulat@arizona.edu
applying information theory to practical problems of reliability and security

Ali Bilgin – bilgin@arizona.edu
signal and image processing • data compression • magnetic resonance imaging

Siyang Cao – caos@arizona.edu
radar signal processing • adaptive radar systems • innovative sensing systems

Tomas Cerny– tcerny@arizona.edu
cloud-native systems • code analysis • software architecture • system evolution • technical debt

Jingdi Chen – jingdic@arizona.edu
reinforcement learning • multi-agent systems • ML • cybersecurity • data mining • XAI & responsible AI

Jyotikrishna Dass – jdass@arizona.edu
distributed machine learning • edge AI • systems architecture for high-performance machine learning

Diana Diazh – ddiana@arizona.edu
domain-specific languages • medical informatics • applied ML and AI • computer science education

David Ebert – ebertd@arizona.edu
AI & data science • visual analytics • explainable AI • human–computer teaming

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communications • computing • quantum and classical sensing

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cloud computing • edge software • performance engineering • AI/ML • computer vision

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electronic circuits • embedded microcontrollers • semiconductor processing

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wireless networks • cognitive and software-defined radios • MIMO communications

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quantum networks • integrated photonics • free-space & fiber optical systems

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computer vision • signal and image processing • medical image analysis • machine learning • embedded systems

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information security and privacy • wireless networking • cybersecurity

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reinforcement learning and control • explainable AI • safe AI

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Machine learning • computer vision • scalable AI system • trustworthy AI

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novel imaging systems • machine vision and pattern recognition systems • infrared and RF automatic target recognition

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digital communication and data storage systems • data compression • signal processing

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intelligent systems • computer vision and robotics • machine learning

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antennas for computing • wildlife tracking • microwave circuit design

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response of optical materials and devices to ionizing and non-ionizing radiation

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classical and quantum error correction, quantum computing, quantum networking, quantum communications

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signal-image-video processing and analysis • automated image analysis

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smart grid and smart home • VLSI systems for biomedical applications • multicore design

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design and analysis of complex systems • modeling and computer simulation

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software requirements • algorithms & data structures • AI & programming

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security, signal conversion and processing in IoT • neuromorphic and biologically-inspired AI hardware, emerging spin-based devices • computer architectures • VLSI circuits

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cybersecurity • networks • computers • IoT • cyber-physical systems

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information and coding theory • wireless communications • machine learning

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control theory • engineering education

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machine learning • artificial intelligence • robustness • privacy • fairness

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system security • AI security • software security • cyber-physical systems

Danella Zhao – danellazhao@arizona.edu
domain-specific computing, hardware security and privacy-preserving edge computing, autonomic computing, quantum computing