

The Faculty

CPE200, Fall 2023

Hank Dietz

<http://aggregate.org/hankd/>

Computer Engineering is NOT a department

- Electrical & Computer Engineering

<https://www.engr.uky.edu/research-faculty/departments/electrical-computer-engineering/people>

- Computer Science

<https://www.engr.uky.edu/research-faculty/departments/computer-science/people/faculty>

- The following descriptions are mine...
and **imperfect in various ways**

Robert Adams



- Research area(s):
 - Computational Electromagnetics
- Website:
<https://www.engr.uky.edu/directory/adams-robert>

Jeff Ashley



- Teaching
 - Digital logic
- Website:
<https://www.engr.uky.edu/directory/ashley-jeff>

Jihye Bae



- Research area(s):
 - Signal Processing
 - Machine Learning
 - Neural interfaces and Signal Processing
- Website:
<https://jihyebae.engr.uky.edu/>

Corey Baker



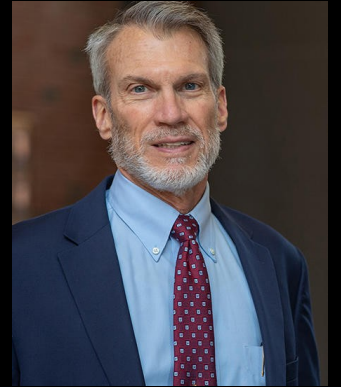
- Research area(s):
 - Networking and IoT
 - Cybersecurity
 - Mobile health environments
- Website:
<https://www.cs.uky.edu/~baker/>

Cody Bumgardner



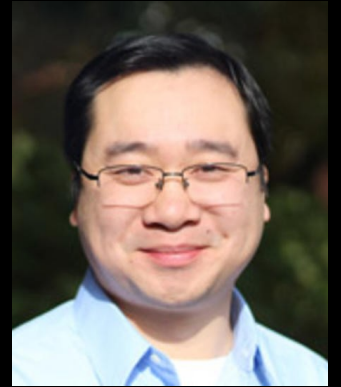
- Research area(s):
 - Networking
 - Cybersecurity
 - Computational biology and bioinformatics
- Website:
<http://codybum.com/>

Kenneth Calvert



- Research area(s):
 - Networking
 - Systems
 - Cybersecurity
- Website:
<https://protocols.netlab.uky.edu/~calvert/>

Jin Chen



- Research area(s):
 - Artificial intelligence and machine learning
 - Bioinformatics
 - Medical images and health records analysis
- Website:
<https://www.engr.uky.edu/directory/chen-jin>

Zhi David Chen



- Research area(s):
 - Nanotechnology
 - Electronic devices and materials
- Website:
<https://web.engr.uky.edu/~zhichen/>

Fuhua (Frank) Cheng



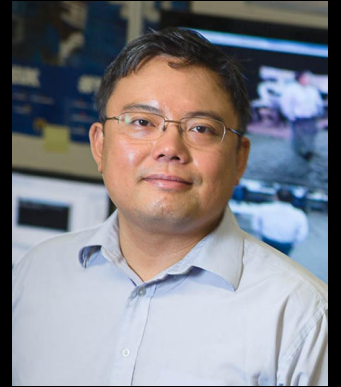
- Research area(s):
 - Graphics
 - Game development
- Website:
<https://www.cs.uky.edu/~cheng/>

Qiang (Shawn) Cheng



- Research area(s):
 - Computer vision
 - Artificial intelligence and machine learning
 - Computational biology and bioinformatics
 - Medical imaging
- Website:
<https://www.engr.uky.edu/directory/cheng-qiang-shawn>

Samson Cheung



- Research area(s):
 - Signal processing
 - Machine learning and data mining
 - Image and video processing
 - Networking
 - Cybersecurity
- Website:
<https://www.engr.uky.edu/directory/cheung-samson>

Aaron Cramer



- Research area(s):
 - Power and energy
- Website:
<https://www.engr.uky.edu/directory/cramer-aaron>

Henry (Hank) Dietz



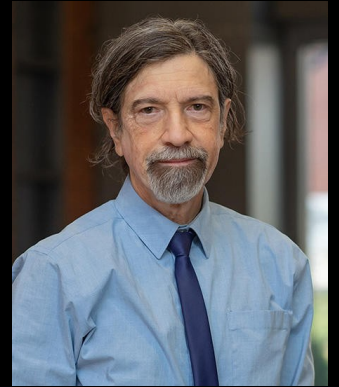
- Research area(s):
 - Compilers and languages
 - Computer architecture
 - Operating systems
 - Parallel & quantum computing
 - Computational photography
 - Making technologies
- Website:
<http://aggregate.org>

Paul Dolloff



- Research area(s):
 - Power and energy
- Website:
<https://www.engr.uky.edu/directory/dolloff-paul>

Kevin Donohue



- Research area(s):
 - Biomedical signals
 - Detection and estimation
 - Pattern recognition
 - Distributed sensor systems
 - Music and speech
 - Ultrasound
- Website:
<https://www.engr.uky.edu/directory/donohue-kevin>

Paul Eberhart



- Teaching
 - Digital logic
 - Embedded systems
- Website:
<https://www.engr.uky.edu/directory/paul-eberhart>

Kevin Eby



- Teaching
 - Computer science senior project
- Website:
<https://www.engr.uky.edu/directory/eby-kevin>

Joseph Elias



- Research area(s):
 - VLSI design tools
- Website:
<https://www.engr.uky.edu/directory/elias-joseph>

Zongming Fei



- Research area(s):
 - Networking
 - Systems
 - Cybersecurity
- Website:
<https://www.cs.uky.edu/~fei/>

Judy Goldsmith



- Research area(s):
 - Artificial intelligence
 - Theory and algorithms
 - Ethics
- Website:
<http://cs.uky.edu/~goldsmith/>

James Griffioen



- Research area(s):
 - Networking
 - Systems
 - Cybersecurity
 - Scientific computing
 - Numerical analysis
- Website:
<https://protocols.netlab.uky.edu/~griff/>

Regina Hannemann



- Teaching
 - Senior project
- Website:
<https://www.engr.uky.edu/directory/hannemann-regina>

Brent Harrison



- Research area(s):
 - Game development and graphics
 - Artificial intelligence and machine learning
 - Data science
- Website:
<https://corgilabai.com/>

Todd Hastings



- Research area(s):
 - Nanotechnology and nanofabrication
 - Biological and chemical sensors
 - Photonics
 - Quantum computing
- Website:
<https://hastings.engr.uky.edu/>

JiangBiao He



- Research area(s):
 - Power and energy
- Website:
<https://ampere.engr.uky.edu/>

Lawrence Holloway



- Research area(s):
 - Manufacturing
 - Robotics and controls
 - Power and energy
- Website:
<https://www.engr.uky.edu/directory/holloway-lawrence-e>

Abdullah-Al-Zubaer Imran



- Research area(s):
 - Artificial intelligence and machine learning
 - Data science
 - Computer vision
 - Medical imaging
- Website:
<https://aaz-imran.github.io/>

Dan M. Ionel



- Research area(s):
 - Power and energy
- Website:
<https://sparklab.engr.uky.edu/>

Michael T. Johnson



- Research area(s):
 - Signal and speech processing
 - Machine learning
- Website:
<https://johnson.engr.uky.edu/>

Ramakanth Kavuluru



- Research area(s):
 - Artificial intelligence and machine learning
 - Data science
 - Computational biology and bioinformatics
 - Medical imaging
- Website:
<https://protocols.netlab.uky.edu/~rvkavu2/>

Hana Khamfroush



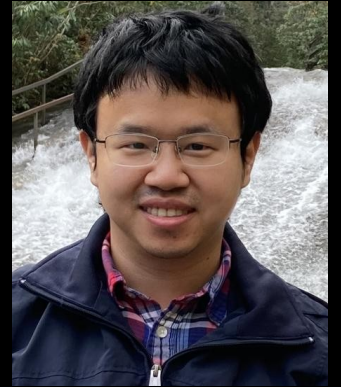
- Research area(s):
 - Networking
 - Systems
 - Cybersecurity
 - Artificial intelligence and machine learning
 - Data science
- Website:
<https://www.cs.uky.edu/~khamfroush/>

Daniel Lau



- Research area(s):
 - Signal processing
 - Machine learning
 - 3D photogrammetry
 - Digital communications
- Website:
<https://www.engr.uky.edu/directory/lau-daniel>

Xin Liang



- Research area(s):
 - Parallel, distributed, & heterogenous systems
 - Data management
 - Scientific visualization
 - Numerical methods
- Website:
<https://lxaltria.github.io>

Yuan Liao



- Research area(s):
 - Power and energy
 - Signal processing
 - Machine learning
- Website:
<https://www.engr.uky.edu/directory/liao-yuan>

Cai-Cheng Lu



- Research area(s):
 - Computational electromagnetics
- Website:
<https://www.engr.uky.edu/directory/lu-cai-cheng>

James Lumpp



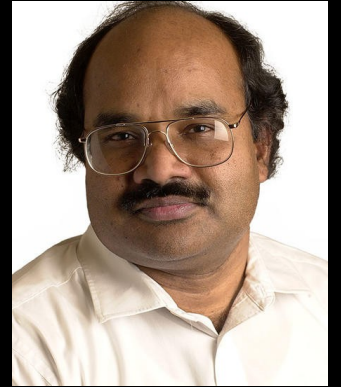
- Research area(s):
 - Computer architecture
 - Embedded systems
 - Spacecraft systems and satellites
 - Autonomous vehicles
 - Parallel and distributed systems
- Website:
<https://www.engr.uky.edu/directory/lumpp-james-e>

Janet Lumpp



- Research area(s):
 - Nanotechnology
 - Electronic systems fabrication
- Website:
<https://www.engr.uky.edu/directory/lumpp-janet-k>

Dakshnamoorthy (Mani) Manivannan



- Research area(s):
 - Networking
 - Systems
 - Cybersecurity
- Website:
<http://cs.uky.edu/~manivann/>

Neil Moore



- Teaching
 - First-year engineering
 - DUS for Computer Science
- Website:
<https://www.engr.uky.edu/directory/moore-neil>

Alexandra “Zan” F. Paterson



- Research area(s):
 - Organic materials and devices
- Website:
<https://www.engr.uky.edu/directory/paterson-alexandra-f>

Sayed Ahmad Salehi



- Research area(s):
 - Energy-efficiency for deep learning & IoT
 - DNA computing and molecular programming
 - Stochastic and approximate computing
 - Signal processing architectures
- Website:
<https://salehi.engr.uky.edu/>

Luis Sanchez Giraldo



- Research area(s):
 - Computational learning, intelligence and perception
 - Signal processing
 - Machine learning
- Website:
<https://cliplab.engr.uky.edu/>

Brent Seales



- Research area(s):
 - Computer vision
 - Artificial intelligence and machine learning
 - Data science
 - Digital restoration
 - Surgical technology
- Website:
<https://www2.cs.uky.edu/dri/>

A. B. Siddique



- Research area(s):
 - Natural language processing
 - Large language models and GPT
- Website:
<https://www.cs.uky.edu/~siddique/>

Simone Silvestri



- Research area(s):
 - Networking
 - Systems
 - Cybersecurity
 - Machine learning
- Website:
<https://silvestri.engr.uky.edu/>

Joseph Sottile



- Research area(s):
 - Power and energy
- Website:
<https://www.engr.uky.edu/directory/sottile-joe>

Jeffrey Talbert



- Research area(s):
 - **Biomedical informatics**
- Website:
<https://scholar.google.com/citations?hl=en&user=5H0Y89gAAAAJ>

Ishan Thakkar



- Research area(s):
 - Computer architecture
 - On-chip and inter-chip networks
 - Design with emerging technologies, e.g., silicon photonics, phase change, spintronics
 - Memory architecture
 - Quantum computing
- Website:
<https://ithakkar.engr.uky.edu/>

Bruce Walcott



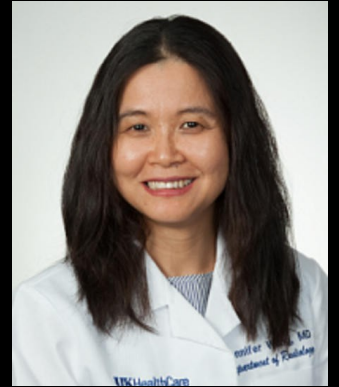
- Research area(s):
 - Manufacturing
 - Robotics and controls
 - Embedded systems
- Website:
<https://www.engr.uky.edu/directory/walcott-bruce-l>

Peng Wang



- Research area(s):
 - Signal processing
 - Machine learning
 - Sustainable manufacturing
- Website:
<https://manufai.engr.uky.edu/>

Xiaoqin (Jennifer) Wang



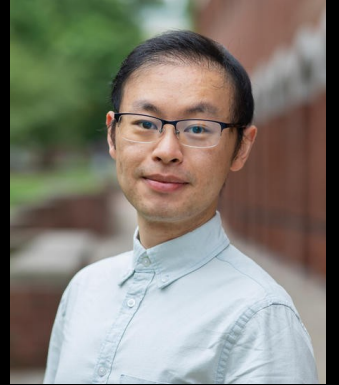
- Research area(s):
 - Artificial intelligence and machine learning
 - Data science
 - Medical imaging
- Website:
<https://www.engr.uky.edu/directory/wang-xiaoqin-jennifer>

Stephen Ware



- Research area(s):
 - Artificial intelligence
 - Game development and graphics
 - Narrative intelligence (storytelling)
- Website:
<http://cs.uky.edu/~sgware/>

Yang Xiao



- Research area(s):
 - Networking
 - Systems
 - Cybersecurity
- Website:
<https://yang-sec.github.io/>

Biyun Xie



- Research area(s):
 - Robotics: kinematically-redundant, fault-tolerant, collaborative, human interaction
 - Autonomy
- Website:
<https://bxie.engr.uky.edu/>

John Young



- Research area(s):
 - Computational electromagnetics
- Website:
<https://web.engr.uky.edu/~jyoung/>

YuMing Zhang



- Research area(s):
 - Manufacturing
 - Robotics and controls
 - Welding
- Website:
<https://www.engr.uky.edu/ism/research/wr/>

Your Assignment



- Who would you like the class to see?
 - 1st choice
 - 2nd choice
 - 3rd choice
- Your choices should include someone from **CS** and someone from **ECE**