

# GRADUATE ADVISORS VIEWBOOK

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# Centers and Labs

## Center for Academic Excellence in Cyber Defense Education (CAE-CD)

CAE-CD is a prestigious NSA designation for universities that have strong cybersecurity education and research programs. Through the Center, UC received multiple grants funded by federal agencies, including National Security Agency and National Science Foundation.

### Industry Collaborations

- Training of Cybersecurity Trainers
- Scholarships for Data-Driven Cybersecurity Graduate Certificate

## Ohio Cyber Range Institute

State-wide cybersecurity and workforce development center.

### Industry Collaborations

- Strengthening cybersecurity skillset with real-world scenarios and hands-on activities.
- Certificates in cloud computing
- Dev Ops Foundation
- UI /UX training / Bootcamp
- Cybersecurity Bootcamp

## Applied Machine Learning and Intelligence Lab

Develop research solutions for complex real-world problems using various machine learning and artificial intelligence techniques.

### Industry Collaborations

- Analyzing and viewing trends in customer behavior and business operational patterns
- Supporting the development of intelligent-based products and services

## Civic Tech Lab

The Civic Tech Lab engages in the design, evaluation, and development of civic technology using a human-centered approach—these projects focus on tech for public good ranging from collective action in community networks to protocols for emergency management.

### Industry Collaborations

- Leading user-centered evaluation and co-design workshops to help you understand target audiences' information needs or illicit feedback on an established system or process

## Information Technology Solution Center (ITSC)

ITSC provides affordable solutions that combine the power of computing technology and data to serve the needs of individuals and organizations.

### Industry Collaborations

- Affordable and high-quality custom-built apps to solve a specific problem
- Building interactive analytical dashboards to support the decision-making process
- Creating augmented reality apps to prepare your organization for the Web3 environment
- Affordable Security Operation Center Services for managed threat detection and response.
- Quality assurance and testing
- Customer service desk

## Justice, Law, and Information Technology Institute

The vision of the Justice, Law, and Information Technology Institute (JLIT) is to impact society by ensuring that criminal justice resources are used as sparingly and effectively as possible to prevent and address harm through fair, equitable processes that respect human dignity, and effective outcomes that promote community health and safety.

The Institute will utilize scientific and evidence-based approaches to understand systematic challenges in criminal justice systems and to develop guidelines and recommendations for the advancement of just processes and effective outcomes. While the Institute will focus on the State of Ohio, its vision is national and global.

### Collaborators:

- Ohio Criminal Sentencing Commission



## Dr. Bou Abdo



- Preferred name: Jacques or Dr. Bou Abdo
- Research Interests: Complex systems, cybersecurity, cyber warfare, complexity economics, and network science.
- Student Projects Mentored: Intrusion Detection Systems for Lightweight IoT, Body Sensor Networks for critical missions, Next generation recommender systems, IT infrastructure for time sensitive services, Serendipitous Recommender Systems, Access control mechanisms for cloud computing, Integration of SoftRAN and Mobile Cloud Computing, Modeling Multi-player Strategic Deterrence, Securing graph databases, Visualizing Information security
- How can students get involved? My team is studying the fundamental principles of Cyber Resilience which can be applied to Cyberwarfare, Dark web, Supply chain, IoT and Crypto economics. There are opportunities and projects on all those topics for students at all levels (undergraduate and graduate). Reach out to me, and let's talk about those projects and the ideas that inspire you.
- Link to work: [https://scholar.google.com/citations?hl=en&user=35c\\_h\\_wAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.com/citations?hl=en&user=35c_h_wAAAAJ&view_op=list_works&sortby=pubdate)



## Dr. Nelly ElSayed

Applied Machine Learning and Intelligence Lab

- Preferred name: Dr. Nelly/Prof. Nelly
- Bio: Machine Learning, Deep Learning, Artificial intelligence, Computer Vision, Healthcare, and Big Data. The founder and the director of the Applied Machine Learning and Intelligence (AMLI) Lab at the School of Information Technology. Publications are available in the Google Scholar Profile.
- Link to work:  
<https://researchdirectory.uc.edu/p/elsayeny>



## Dr. Zag ElSayed

- Preferred name: Dr./Prof. Zag
- Bio: Zag ElSayed is a Computer Science and Automatic Control Engineering Scientist with 15+ years of academic experience and 12+ years of Industrial IT solutions Experience. He is specialized in Brain Computer Interface(BCI), Cybersecurity, Very Large Scale Integrated circuits design (VLSI), Integrated Machine Learning, Artificial Intelligence (AI), Industrial Internet of Things (I2oT), and Green Computing.
- Link to work: <https://researchdirectory.uc.edu/p/elsayezs>



## Dr. Rob Grace

- Preferred name: Dr. Grace
- Research Interests: Crisis informatics; Human-centered IT; Risk and crisis communication; Disaster evacuation; Design research methods; Qualitative research methods
- How can students get involved? Please email me to arrange a time to meet in person or online
- Link to work:
  - <https://doi.org/10.1061/NHREFO.NHENG-1874>
  - <https://doi.org/10.1016/j.ijdr.2021.102636>
  - <https://doi.org/10.5055/jem.0769>



## Dr. Shane Halse

Civic Tech Lab  
Smart Synergies Lab



- Preferred name: Shane, Dr. Shane
- Research Interests: Games, IoT, Crisis response, Social Media
- Student projects mentored: The Success of Video Games as Educational Tools, Extracting Actionable Medical Data from a Twitter User's History During a Medical Emergency
- How can students get involved? or email/talk to me and set up a meeting
- Links to publications that best represent work:
  - <https://bit.ly/maskwearingresearch>
  - <https://bit.ly/refiningcodingresearch>
  - <https://dl.acm.org/doi/abs/10.1145/3323994.3369883>



## Dr. Joseph Johnson

Smart Synergies Lab  
Ohio Bat Lab

- Preferred name: Professor Johnson
- Research Interests: Animal sensors, environmental sensors & analytics, animal networks, conservation biology, animal ecology, climate change
- Student projects mentored: Leveraging data from environmental sensors to manipulate underground temperatures for bat conservation, Use of radio-frequency identification technology to quantify bat populations, Studying winter behavior of bats using thermal infrared cameras
- How can students get involved? Send an email to arrange time to meet in-person or online
- Links to publications that best represent work:
  - <https://bit.ly/batresearchwhitenose>
  - <https://scholarspace.manoa.hawaii.edu/items/b9a2a2bb-351a-4d8e-a4c0-8c2661f6130d>
  - <https://onlinelibrary.wiley.com/doi/full/10.1002/ece3.7244>





## Dr. Jess Kropczynski

Civic Tech Lab  
Smart Synergies Lab

- Preferred name: Dr. K
- Research Interests: Human-Centered IT, Social Network Analysis, Smart Cities, Smart Homes
- Student projects mentored: Creating human-centered digital tools that support decision-maker needs in contexts ranging from city planning to crisis response
- How can students get involved? Our lab meetings are open to all
- Links to publications that best represent work:
  - <https://dl.acm.org/doi/abs/10.1145/3479540>
  - <https://tinyurl.com/actionablecrisisinfo>
  - <https://tinyurl.com/communityissuereview>



## Dr. Chengcheng Li

Center for Academic Excellence in Cyber Defense Education (CAE-CD)

- Preferred name: Prof. Li
- Research Interests: Cybersecurity, Machine Learning
- Student Projects Mentored: Novel tools for cybersecurity or machine learning
- Link to work: <https://researchdirectory.uc.edu/p/li2cc>



## Dr. Murat Ozer

Information Technology Solutions Center

- Preferred name: Dr./Prof. Ozer
- Research Interests: Crime Information, Data Analytics, Cybersecurity, Cloud Computing, Blockchain, Software Development, Statistical Analysis, GIS
- Student Projects Mentored: Crime Information, Data Analytics, Cybersecurity, Cloud Computing, Blockchain, Software Development, Statistical Analysis, GIS
- How can students get involved? Sending an email with resume
- Links of publications that best represent work:
  - <https://bit.ly/rulebasedresearch>
  - <https://ieeexplore.ieee.org/abstract/document/9458100>
  - <https://bit.ly/gangmemberresearch>



## Dr. Saheed Popoola

Information Technology Solutions Center

- Preferred name: Dr. Saheed
- Research Interests: Software Engineering, Computing Education, Machine Learning for Software Development.
- Student Projects Mentored: Analysis of software artifacts, Computing Internships, mining software repositories, educational softwares, learning sciences for software development .
- How can students get involved? Send an email
- Links of publications that best represent work:
  - [http://www.jot.fm/issues/issue\\_2021\\_01/article1.pdf](http://www.jot.fm/issues/issue_2021_01/article1.pdf)
  - <https://ieeexplore.ieee.org/abstract/document/9643663>



## Dr. Annu Prabhakar

- Preferred name: Dr./Prof. Annu or Dr./Prof. Prabhakar
- Research Interests: HCI, Interaction Design, Design Thinking, Algorithmic Bias
- Student Projects Mentored: Interaction design projects, Usability Studies, AML, User Experience research
- How can students get involved? Email [Annu.Prabhakar@uc.edu](mailto:Annu.Prabhakar@uc.edu)
- Link to work: <https://researchdirectory.uc.edu/p/prabhaab>



## Dr. Isaac Kofi Nti

- Preferred name: Dr. Nti
- Research Interests: Machine Learning and Data Analytics, Financial Technology (FinTech), AI-powered Cybersecurity, Health and Energy Informatics, Smart and Sustainable Agriculture, Social and Sustainable Computing.
- Student Projects Mentored: Early Detection of Stroke based on Categorical Gradient Boosting Machine, Boosting ensemble model for maternal mortality analysis and detection, Forecasting electricity consumption of residential users based on lifestyle data using artificial neural networks.
- How can students get involved? Send Email.
- Link to work:  
<https://researchdirectory.uc.edu/p/ntiik>, ORCID ID: 0000-0001-9257-4295, Web of Science ResearcherID: E-2004-2017, Scopus Author ID: 57210637914, Google Scholar Research Gate SciProfiles: 698726.





## Dr. Hazem Said

Information Technology Solutions Center

<https://cech.uc.edu/schools/it/centers/itsolutionscenter.html>

Ohio Cyber Range Institute <https://www.ohiocyberangeinstitute.org>

Ohio Sentencing Data Platform <https://www.ohiosentencingdata.info/contact-us>  
Justice, Law, and Information Technology Institute

- Preferred name: Dr. Said (pronunciation : Dr. S AY EED)
- Research Interests: Criminal Justice Outcomes and Processes; Framework and Theory of the Discipline of Information Technology; Information Technology Solutions; Information Technology Education; Cybersecurity Risk, Virtual Cybersecurity testbeds, digital twins of society.
- Bio: Academic faculty and leader with over 20 years of experience in teaching, academic leadership, and translating best practices into impactful solutions.
- Passionate about helping people; recognized for visionary leadership, strategic and results-oriented approach, ability to take innovative ideas to fruition, ability to listen to various constituencies, ability to foster transformative growth, innovation and entrepreneurship. Contact: through email only – [saidhm@ucmail.uc.edu](mailto:saidhm@ucmail.uc.edu)
- Link to work: <https://researchdirectory.uc.edu/p/saidhm>



## Dr. Adib Zaman

- Preferred name: Dr. /Prof Zaman , Dr. Z
- Research Interests: AI in Health informatics, Big Data, Cybersecurity.
- Student Projects Mentored: Application of an Ensembled Machine Learning Model in Diabetes Prediction, Deep learning and AI applications in cancer research.
- How can students get involved? Email (Adib.Zaman@uc.edu)/ MS Teams.
- Link to work: <https://researchdirectory.uc.edu/p/1623036>