

Stuart Baxley

Kent, Ohio

Email: sbaxley1@kent.edu

Office: 330.672.7063

LinkedIn: in/stuartbaxley

EDUCATION

- **Ph.D. in Computer Science** – *Univ. of Houston* Aug. 2022
 - **Focus:** Distributed systems, network security and reliability, HPC
 - **Dissertation:** *Graph-based Policy-driven Resource Mapping for Precise Allocations on Diverse Computer Networks*
- **Masters of Science in Engineering Technology** – *Univ. of Houston* Aug. 2018
 - **Focus:** Network reliability and security, algorithm development and prototyping, SDN
 - **Thesis:** *Network Function Designed for Reliable and Secure Message Delivery over Commodity Transport*
- **Bachelor of Science in Physics and Chemistry** – *Guilford College* May 2013
 - **Minor:** Mathematics for the Sciences
 - **Thesis:** *Dependence of Wooden Longboard Flexibility on Deck Concavity*

ACADEMIC EXPERIENCE

- **Assistant Professor** – *Kent State University* Aug. 2025 - Present
 - **College of Aeronautics and Engineering:** School of Engineering
 - **Program:** Cybersecurity Engineering and Computer Engineering Technology
- **Teaching Fellow** – *Univ. of Houston* Jan. 2020 - Aug. 2022
 - **Instructor:** Undergraduate Introduction to Computer Networks
 - **Instructional Assistant:** Graduate Network Security & Undergraduate Advanced Comp. Networks
- **Research Assistant** – *Univ. of Houston (UH-netlab)* Jan. 2016 - Dec. 2019
 - **Virtual Topology Services:** Add features to network orchestration and experimentation platform VTS
 - **Infrastructure:** Install, configure, and maintain lab systems and equipment
- **Conference EasyChair Administrator** – *ICCCN 2021* Oct. 2020 - July 2021
 - **Administration:** Maintain EasyChair conference site, manage and communicate with users
 - **Data analytics:** Provide reports summarizing submission, review, and acceptance statistics

PROFESSIONAL EXPERIENCE

- **R&D Computer Science, Sr. – Product Owner** – *Sandia National Laboratories* Jan. 2025 - Aug. 2025
 - **Product Owner:** Lead the Advanced Simulation and Computing (ASC) DevSecOps Core team to develop maximally impactful products and services required by the 31 stakeholder code teams, scientific and engineering code bases of various sizes and ages
 - **Technical Lead:** Drive the architectural design and development of ASC DevSecOps product and service offerings, educating incoming employees, developing process standards, and ensuring the team achieves its mission goals
- **R&D Computer Science, Sr. – Developer** – *Sandia National Laboratories* Sept. 2022 - Jan. 2025
 - **DevSecOps:** Automate build, deploy, and test software products and services with an emphasis on secure software supply chain monitoring and management
 - **Software Architect:** Design and implement software systems spanning multiple supported platforms: bare-metal, container/cloud, and databases
- **Production Chemist, Quality Deputy, Statistician** – *DCG Partnership Ltd.* Dec. 2013 - Nov. 2015
 - **ISO 17025:** Determine physical property uncertainty for certified Reference Materials
 - **Quality Management System:** Create and revise documents to improve quality and maintain compliance

PUBLICATIONS

- Stuart Baxley “Graph-based, Policy-driven Resource Mapping for Precise Allocations on Diverse Computer Networks,” Doctoral Dissertation. University of Houston. 2022
- Stuart Baxley, Nicholas Bastin, Deniz Gurkan, William Arthur Conklin “Feasibility of critical infrastructure protection using network functions for programmable and decoupled ICS policy enforcement over WAN,” International Journal of Critical Infrastructure Protection, Volume 39, 2022.
- Stuart Baxley, Deniz Gurkan, Hamidreza Validi, Ilya Hicks “Graph Representation of Computer Network Resources for Precise Allocations,” 2022 International Conference on Computer Communications and Networks (ICCCN), Honolulu, HI, USA, 2022.
- Stuart Baxley, “Network Function Insertion for Reliable and Secure Control Messaging Over Commodity Transport,” Master’s Thesis. University of Houston 2018
- Baxley, Stuart, Nick Bastin, and Deniz Gurkan. “Analysis of In-order Packet Delivery Network Policy Enforcement Function.” IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)-Second Place in GENI Repeatable Experimentation Competition. 2018.

PRESENTATIONS

- Stuart Baxley “From DevOps to DevSecOps: ASC DSO at Sandia’s Journey toward Secure Software,” National Labs Information Technology Conference (NLIT), Denver, CO, USA 2025
- Stuart Baxley “SNL ASC DevOps: Unified Container Environment,” National Labs Information Technology Conference (NLIT), Seattle, WA, USA 2024
- Stuart Baxley, Akhil Potla “ASC Unified Environment: Sustainable Software Deployment Across Varied High-Performance and General-Purpose Computing Platforms,” National Labs Information Technology Conference (NLIT), Milwaukee, WI, USA 2023

CERTIFICATES

- HPE Data Science Institute *Certificate in High Performance Computing*
- Amazon Web Services (AWS) *Cloud Practitioner*