SKYLER AUSTEN

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EDUCATION

PhD in Computer Science, Brown University   Expected, May 2028
Specializations: Cybersecurity Education and Formal Methods
Advisors: Dr. Shriram Krishnamurthi and Dr. Kathi Fisler

Bachelor of Science, University of Central Arkansas   Dec 2022
Majors: Computer Science and Cybersecurity
Concentrations: Data Science and Cyberphysical Security
Minor: Honors Interdisciplinary Studies

COURSEWORK

Systems: Networking, Distributed Systems, Programming Languages, Linux/UNIX Systems, Database Systems, Computer Architecture, Operating Systems

Software: Software Engineering, Web Design

Security: Network Security, Cryptography, Computer Forensics, Software Security, Ethical Hacking, Cybersecurity Law and Policy, Cybersecurity Governance

Theory: Data Structures & Algorithms, Theory of Computation, Logic for Systems

Data: Machine Learning, Data Clustering, Business Intelligence

Math: Statistics, Statistical Methods, Linear Algebra, Number Theory, Discrete Math, Calculus

RESEARCH EXPERIENCE

Brown University, Providence, RI   2023 to Present
Graduate Researcher, Department of Computer Science
- Developing tools for novices learning Linear Temporal Logic (LTL).
- Analyzed student design decisions and tensions when implementing privacy-preserving software systems.

EPSCoR Data Science Education Grant, Conway, AR   2022 to 2023
Researcher, EPSCoR DART Project
- Developed gamified education platforms for cybersecurity and data science.

NASA Jet Propulsion Lab, Pasadena, CA   2021
Security Engineering Intern, Cyber Defense and Engineering Lab
- Developed a lab-internal cybersecurity competition and related training materials and assisted with cybersecurity risk assessment.

Networking and Security Lab, Conway, AR   2020 to 2021
Research Assistant, University of Central Arkansas
- Performed literature review of relevant cryptographic systems research and provided technical support for lab projects.

Research Experience for Undergraduates (REU), Fargo, ND   2020
Researcher, North Dakota State University
- Researched cybersecurity education applications of Blackboard AI systems.

TEACHING EXPERIENCE

Arkansas Coding Academy, Conway, AR   2023
Course Instructor
- Eight-week Python Bootcamp

University of Central Arkansas, Conway, AR   2019 to 2022
Co-teacher, Schedler Honors College
- From Barter to Bitcoin (Dr. Allison Wallace)

Teaching Assistant, Schedler Honors College
- Gender and Religion Seminar (Dr. Donna Bowman)

Community Class Instructor, Department of Computer Science and Engineering
- STEM Applications of Python

National Cyber Teaching Academy, Remote   2022
Teaching Assistant, Department of Computer Science
- Teaching Cybersecurity (Dr. Melissa Dark)
- Foundations of Cybersecurity (Dr. Philip Huff)

Little Rock Public School District, Little Rock, AR   2021
After-school Instructor, Mabelvale Middle School
- VEX Robotics (Dr. William Slaton)

OTHER WORK EXPERIENCE

Boy Scouts of America, Islamorada, FL   2023
Information Technology Intern
- Troubleshot hardware and software issues for staff members and developed a custom educational WordPress website.

The City of Conway, Conway, AR   2023
Information Security Intern
- Conducted vulnerability assessments, led cybersecurity tabletop exercises, and implemented several network automation scripts.

Arkansas Coding Academy, Conway, AR   2021 to 2023
Cybersecurity Curriculum Intern
- Developed curricula for cybersecurity bootcamp courses.

University of Central Arkansas, Conway, AR   2019 to 2023
Software Developer, Schedler Honors College
- Updated and maintained the college's proprietary application software.

Information Technology Assistant, College of Natural Science and Mathematics
- Troubleshot hardware and software issues for college faculty and staff and wrote curricula for the university's Cyber Range Learning Management System (LMS).

Departmental Tutor, Department of Computer Science and Engineering
- Held regular office hours to provide tutoring and supplemental instruction for computer science and cybersecurity students.

Teach Cyber, West Lafayette, IN   2021 to 2022
Newsletter Author
- Wrote for and edited a monthly newsletter for teachers about diverse topics in cybersecurity.

Honors and Awards

UCA Outstanding Computer Science Student   2022
Selected annually by the faculty of the Department of Computer Science and Engineering.

Xzin McNeal Endowed Scholarship   2022
Competitive scholarship for students enrolled in the College of Natural Sciences and Mathematics at UCA.

Computer Science Student Scholarship   2022
Competitive scholarship for full-time UCA students majoring in computer science.

2022 (ISC)² Undergraduate Scholarship   2022
Competitive scholarship for students pursuing a degree with a focus on cybersecurity or information assurance.

UCA Bear CLAWS Award   2021
Celebrating the Lofty Achievements of our Wonderful Students (CLAWS) award presented to students by the UCA Board of Trustees.

UCA Presidential Leadership Fellow 2021
Group of thirty UCA students selected to represent the president's office at events with politicians, business executives, and other community leaders.

UCA Purple Society, Outstanding Student 2021
Student award program that recognizes campus leaders for their achievements at UCA. Selected from Purple Society members as one of ten outstanding students.

H. Fred Dalske Science Student Scholarship 2020
Competitive scholarship for students majoring in the sciences at UCA interested in pursuing a graduate degree.

SANS Cyber FastTrack Scholarship 2020
$22,000 scholarship for the SANS Technology Institute's certificate in applied cybersecurity. Awarded to a select group of high-placing students in the Cyber FastTrack CTF competition, a national CTF competition with more than 1,700 participants.

USSVI Charitable Foundation Student Scholarship 2018
Scholarship for the dependent sons, daughters and grandchildren of active members of the United States Submarine Veterans, Inc. (USSVI).

Norbert O. Schedler Honors College Scholarship 2018
Full-ride scholarship awarded to seventy-five entering freshmen at UCA each year.

Eagle Scout 2017
The highest rank attainable in the Boy Scouts of America (BSA).

PUBLICATIONS

Conference Paper
J. Netter, T. Nelson, S. Austen, E. Lau, C. Rusch, M. Schwarzkopf, and K. Fisler, "A Stakeholder-based Framework to Highlight Tensions when Implementing Privacy Features," 2025 USENIX Security.

Conference Poster
S. Austen and S. R. Addison, "Improving the Educational Efficacy of Beginner-friendly Cybersecurity Competitions," 2023 SIGCSE Technical Symposium.

Undergraduate Thesis
S. Austen, "Let the Games Begin: Studying the Educational Efficacy of Cybersecurity Competitions," 2022.

PRESENTATIONS

Conference Presentation, "Adapting the Cybersecurity CTF Format for Data Science," 2022 DART Education Conference, June 2022.

Community Presentation, "Capture-the-Flags as a Classroom Teaching Tool," Central Arkansas Hackers, July 2022.

Capstone Presentation, Schedler Honors College, April 2022.

Invited Lecture, "Security and Privacy Threats of Artificial Intelligence," Love, War, and Robots Seminar, March 2022.

Community Presentation, "Quantum Computing and Cybersecurity," Central Arkansas Hackers, May 2021.

INDUSTRY CERTIFICATIONS

Certified Ethical Hacker (C|EH), EC-Council, 2023

GIAC Certified Forensic Analyst (GCFA), GIAC, 2022

GIAC Certified Incident Handler (GCIH), GIAC, 2022

GIAC Security Essentials Certification (GSEC), GIAC, 2021

GIAC Foundational Cybersecurity Technologies (GFACT), GIAC, 2021

MEDIA ARTICLES

"[North Little Rock Native Interns at Arkansas Coding Academy](#)," 501 Life, August 2022.

"[People of UCA: Skyler Austen](#)," UCA Echo, August 2021.

PROFESSIONAL SERVICE

American Society for Engineering Education, 2021 to 2022
Student Division Information Chair

Brown University Department of Computer Science, 2024 to Present
Department Information Khan

STUDENT LEADERSHIP

UCA Cybersecurity Club
Founder and President, 2020 to 2022

UCA Cybersecurity Competition Team
Founder and President, 2020 to 2022

UCA Computer Science Club
President, 2020 to 2022
Marketing Chair, 2018 to 2019

UCA University Ambassadors
President, 2021 to 2022
Team Leader, 2020 to 2021

UCA Schedler Honors Council
Vice Chair, 2020 to 2021
Community Service Chair, 2019 to 2020

Arkansas Model United Nations
Chief Technology Officer, 2022
Committee Chair, 2019 to 2022

IrisSec CTF Competition Team
Member, 2021to Present

COMMUNITY SERVICE

Epiphany Soup Kitchen
General Volunteer, 2023 to Present

Boy Scouts of America
Foothills District Committee Member, 2022 to 2023
Troop 534 Assistant Scoutmaster, 2020 to 2023

Arkansas Asset Builders
Intake Coordinator & Technology Assistant, 2019 to 2023

The City of Hope Outreach
Volunteer Tutor and Gardener, 2019 to 2023

North Little Rock Lions Club
General Member and Volunteer, 2018 to 2023

Central Arkansas Radio Emergency Network
Race Net Volunteer, 2014 to 2023

COMPUTER SKILLS

Policies: NIST 800 Series, NIST NICE, ISO 27000, CIS Controls

Programming: Python 2 & 3, C++, Java, R, Bash, MySQL, x86 Assembly, HTML & CSS, PHP, Alloy, Racket, Z3

Cybersecurity: TCP/IP Networking, Wireshark, Digital Forensics, Volatility, Autopsy, Windows Registry, MITRE ATT&CK, Log Analysis, Splunk, Scripting, OWASP Top 10, Metasploit Framework, Pwntools, PKI Solutions & OpenSSL

Platforms: Docker Engine, AWS, Google Cloud, Digital Ocean, CTFd, Mellivora, WordPress

Research: Qualitative Analysis, Data Analysis, Codebook Development, Technical Writing & Editing, Documentation, Project Management, Markdown, Git, Microsoft Office Suite, Event Planning, Tableau, Formal Methods, Programming Language Development, Machine Learning