

EDUCATION

North Carolina State University
Bachelor of Science; Computer Science

Raleigh, NC
Expected May 2025

Relevant Coursework: Software Engineering, Operating Systems, Java Fundamentals, Statistics, Artificial Intelligence, Data Science

PROJECTS

CoffeeMaker

January 2024 - May 2024

- *Mock coffee maker software, with **back-end** logic implemented using **SQL** and **Java**, and **front-end** done with **HTML/AngularJS***
- Created **REST API endpoints**, to support updating **database** values for arbitrarily pre-defined ingredients
- Utilized **Git** revision control services for project management and the **Agile methodology** for productivity enhancements

Encrypted File Transfer System

May 2024 - June 2024

- *Python file transfer system sending information **encrypted with AES** across **AWS EC2** instances*
- Utilized **network sockets** and **cryptographic libraries (PyCryptodome)** to transfer files between client and server, handling both small and large files, including binary data
- Conducted **security evaluations** to identify potential vulnerabilities and implemented additional security measures such as **man-in-the-middle** attack mitigation or **rate-limiting**

Virtual Pet

Dec 2023

- *Interactive **Python**-based virtual pet, designed to play inside of a terminal window and keep users company*
- Utilized various methods, including **multithreading** and **synchronization** techniques, to ensure dynamic behaviour

PROFESSIONAL AND LEADERSHIP EXPERIENCE

Managed Services Intern - Tryon Solutions

May 2024 – August 2024

- Automated code management tool to connect with bitbucket source control pipelines, streamlining development processes
- Gained functional and technical supply chain and warehouse management experience with Blue Yonder/JDA
- Practiced skills necessary for consultants, such as project management, interpersonal communication, and communication

Lead Teaching Assistant - NCSU Computer Science Department

August 2023 – Present

- Selected as a teaching assistant for the highest level course allowed for undergraduate students
- Refactoring, updating, and maintaining data scraping and assignment cloning projects used for grading 250+ student projects per week
- Facilitating weekly lab sessions for over 24 students, guiding them through the development of semester-long projects, and reinforcing key concepts in computer science
- Providing targeted assistance to students, significantly improving their understanding of Java semantics and data structures through personalized and group instruction methods

Undergraduate Research Assistant - NCSU Computer Science Department

January 2023 – May 2024

- Developing evaluation and testing scripts in Python for generative AI tools, as part of <https://github.com/SEEDGuard/SEVAL>, a project focusing on the automated evaluation of software engineering tasks
- Acquiring extensive experience in generative AI and Large Language Models, encompassing both theoretical research and practical implementation

Cybersecurity Intern - Triangle Cyber

May 2024 - Present

- Worked on cybersecurity analysis and development projects, covering **networking**, **TTPs**, **Cloud Computing**, and **Kali Linux**
- Expanded theoretical knowledge on topics such as **MS Azure** Cloud Computing, and Cybersecurity Fundamentals

President - NCSU Quantum Computing Club

May 2023 – Present

- Facilitated quantum computing workshops with 20+ attendees, with topics such as QKD, Quantum AI/ML, and Qiskit programming
- Proactively liaising with corporations to organize 10+ speakers for events discussing trends and applications of quantum computing

Student Ambassador - NCSU Computer Science Department

Aug 2023 – Present

- Supporting the Computer Science department in various outreach events for new and prospective students
- Collaborating in the implementation and improvement of new digital communication platforms for students

Qualifications & Interests

Programming Languages, Frameworks, & Tools: Java, C, Python, SQL, R, Spring Boot, Hibernate, AngularJS, HTML/CSS, JUnit Testing, CUDA, Git, Linux, Eclipse IDE, Debugging tools, Visual Studio Code, AWK, Nmap, Excel, Written communication, Blue Yonder/JDA WMS, MS Azure cloud computing, AWS, MVC Architecture, Kali Linux, Hydra, Static Code Analysis

Interests: Quantum Computing, AI/ML, Cybersecurity, Education, NBA Basketball