Shannon Jade Liu

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EDUCATION

Cornell University, College of Engineering Ithaca, NY
Bachelor of Science in Computer Science *August 2023–May 2027*

WORK EXPERIENCE

Cybersecurity Engineering Intern *June 2025–Present*
FactSet Research Systems Inc. Norwalk, CT

- Built scalable, cloud-native security solutions and improved developer infrastructure on the Security Automation and Analytics Team; collaborated cross-functionally in an Agile Scrum environment
- Developed a robust middleware API with JavaScript, GraphQL, PostgreSQL, and Azure OAuth to power a vulnerability management dashboard, enabling clients to access and visualize system risks, asset exposures, and remediation steps across 11 strategic business units
- Deployed a threat intelligence platform on Amazon EKS using Kubernetes, Helm, CI/CD pipelines, and AWS; configured 10+ API connectors to automate threat data collection and enhance security team visibility

Software Engineer *October 2023–Present*
Cornell University Unmanned Air Systems (CUAir) Ithaca, NY

- Designed and built the "Plane System," a Python and Rust application on Raspberry Pi for GoPro image capture, camera settings control, and real-time telemetry transmission on the Imaging Systems Software Team; actively used by 60+ engineers on an autonomous aircraft for search and rescue competitions
- Developed the "Logs Page," a full-stack web application using Java, JavaScript, React.js, HTML, and CSS to record and analyze test flight data, integrating real-time telemetry, imagery, and user input via APIs
- Led 10+ system tests, including unit, integration, and end-to-end validations; identified and resolved critical bugs in Wi-Fi setup, command communication, and hardware-software integration

Research Intern *June 2024–Present*
Interaction Research Lab @ Cornell Tech New York, NY

- Led research on the Bystander Affect Detection (BAD) Robots project to study human responses to repeated robot failures during human-robot conversations and to improve robot communication and repair strategies
- Analyzed visual, audio, and motion data from 30+ human-robot interaction videos involving successive robot failures; extracted 66 features across 28K+ data points using Python and open-source libraries
- Built, trained, and evaluated multimodal time-series models (RNNs, transformers, linear classifiers) in TensorFlow and PyTorch using early, intermediate, and late fusion techniques for robot error granularity detection; achieved 93% intraparticipant and 71% interparticipant accuracy
- Published a peer-reviewed paper and presented at the 20th IEEE/ACM International Conference on Human-Robot Interaction, titled "I'm Done": Describing Human Reactions to Successive Robot Failure

Software Engineer Intern *July 2022*
Trillium Trading, LLC New York, NY

- Built and improved 6 Java-based trading simulators replicating stock quoting, borrowing, and authentication workflows; enabled safe, cost-free testing and supported a production server used by 100+ equity traders
- Developed reusable tools and utilities to optimize request/response handling with broker-dealer APIs, enhancing code modularity and efficiency in network communication and JSON-based protocols

SKILLS

- Programming Languages: Python, Java, C++, Rust, JavaScript, TypeScript, HTML/CSS, SQL, GraphQL
- Frameworks / Libraries: Tensorflow, PyTorch, NumPy, Pandas, Matplotlib, React.js, Spring Boot
- Tools: Git, PostgreSQL, Docker, Kubernetes, Helm, Github Actions, Amazon Web Services, Azure, Jira