FAIZAH NAQVI

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EDUCATION

Brown University Providence, RI
Bachelor & Master of Science in Computer Science | **GPA:** 3.95/4.0 *Expected graduation* May 2026
Relevant coursework: Computer Systems, High Performance Network Systems, Blockchains & Cryptocurrency, Systems Security, Database Management, Deep Learning/AI, Software Engineering, Data Science.

SKILLS & INTERESTS

Programming Languages: Python, Go, Rust, C++, C, Java, Typescript, HTML/CSS, React, SQL.
Tools & Frameworks: Linux, Git, Docker, Wireshark, gNMIc, OpenConfig, Pandas, NumPy, Seaborn, TensorFlow, PyTorch, Scikit-learn, Cursor (AI).
Certifications: JCNIA-Junos

PROFESSIONAL EXPERIENCE

Juniper Networks | *Sunnyvale, CA* May 2025 – Aug. 2025
Software Engineer Intern (Test Engineering)

- Spearheaded validation of Juniper's software for industry compliance (gNMI and OpenConfig) across ~7,000 features in multiple Junos releases.
- Built and tested virtual router topologies, uncovering and reporting bugs that impacted over 100 features across software releases for Juniper's top-tier clients.
- Actively debugged and enhanced Juniper's internal automation tool for testing, boosting test reliability and expanding automated coverage across releases.

Consolidated Edison | *New York, NY* May 2024 – Aug. 2024
Enterprise Architecture Intern

- Designed a company-wide framework to mitigate security vulnerabilities throughout the software development life cycle, focusing on the OWASP Top Ten.
- Researched, evaluated, and recommended hardware aligned with ConEd data center specifications, standardizing infrastructure across the company.

Brown University Department of Computer Science | *Providence, RI* May 2023 – May 2025
Undergraduate Teaching Assistant

- Work closely with ~20 colleagues to perform code reviews, hold technical and conceptual office hours, and grade projects on core systems and algorithm topics.
- Collaborated directly with Prof. Van Dam to research, craft and deliver biweekly mini-lectures on socially responsible computing to ~400 students.

RESEARCH & PROJECTS

Low-Latency Network System | *Rust* Mar. 2025

- Implemented and analyzed a high-performance TCP client-server application with I/O ring optimizations for open-loop request generation, minimizing latency and analyzing the system throughput.

Virtual Internet Protocol | *Go* Nov. 2024

- Developed a custom Virtual IP and TCP Network using UDP sockets, incorporating RIP routing protocol with poison reverse and split horizon to enhance network efficiency.
- Optimized packet transmission through sliding window mechanisms, retransmissions, and zero-window probing.

Redlining Maps | *Typescript, React, Java* Apr. 2024

- Co-developed a full stack web mapping application overlaying redlining data with user authentication, dynamic pin storage, and cookie management using Firebase

American Community Survey (ACS) Data Connector | *Typescript, React, Java* Apr. 2024

- Designed a web app to display API calls to ACS data. Integrated Firebase for authentication and prioritized accessibility via keyboard shortcuts and screen reader compatibility.

AI Robotics Ethics Society @ Brown | *Python* Sep. 2022 - Present

- Collaborated with postdoc researchers from Pontifical Catholic University, Brazil to develop a framework that evaluates model risk for software developers; results published in *Crossing the Principle–Practice Gap in AI Ethics with Ethical Problem-Solving*, Springer.
- Led team of five undergraduates to conduct a study measuring the impact of technology ethics education within the Brown University Computer Science Department.