

# FAIZAH NAQVI



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<https://ffnaqvi.github.io/>

## EDUCATION

### Brown University

Bachelor & Master of Science in Computer Science | **GPA:** 3.95/4.0

Providence, RI

*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.