







#### **EDUCATION**

Brown University, ScB in Computer Science

**GPA:** 3.95/4.0

Providence, RI Expected graduation 2026

Relevant coursework: High Performance Network Systems, Software Engineering, Systems Security, Applied Cryptography, Computational Linguistics, Data Science, Computer Networks, Computer Systems, Data Structures and Algorithms, Object-Oriented Programming, Linear Algebra, Statistical Inference.

## **SKILLS & INTERESTS**

Programming Languages: Python, Java, Go, C, C++, Rust, SQL, TypeScript, React, HTML/CSS.

Tools & Frameworks: Pandas, NumPy, Seaborn, TensorFlow, PyTorch, Scikit-learn, Git, Docker, Wireshark, Linux, Burp Suite.

Activities: Women in Computer Science (Mentor), Muslim Students Association (Program Lead), Community Coordinator (First-Year Experience).

Languages: Intermediate-High Chinese (ACTFL certified). Novice-High Arabic (ACTFL certified). Conversational Urdu.

## PROFESSIONAL EXPERIENCE

# 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.
- Developed a comprehensive Enterprise Architecture using TOGAF, leading to the integration and streamlining of company's IT systems.

#### Brown University Department of Computer Science | Providence, RI

May 2023 - Present

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.

#### Ashoka | Remote

May 2023 - Aug. 2023

Data Analytics Intern

· Conduct qualitative and quantitative analysis using STATA on surveys from executive leaders of non-profit organizations. Identified, complied, and tracked User Feedback KPIs for the company's annual investor report.

## RESEARCH & PROJECTS

#### Virtual Internet Protocol | Go

Nov. 2024

 Developed a custom Virtual IP and TCP Network, implementing IP forwarding and routing, using UDP sockets to simulate packet transmission. Integrated 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.

# Low-Latency Network System | Rust

Feb. 2025

· Implemented and analyzed a high-performance TCP client-server application with both closed-loop and openloop request generation, optimizing connections for minimal latency and analyzing the system throughput.

# Redlining Maps | Typescript, React, Java

Apr. 2024

· Led classmates in developing 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 | Co-President

Sep. 2022 - Present

· Collaborated with postdoc researchers from Pontifical Catholic University, Brazil to develop a framework that evaluates model risk for software developers. Led team of undergraduates to conduct a study measuring the impact of technology ethics education within the Brown University Computer Science Department.

#### Thread-Safe Database | C

Oct. 2023

· Built a multi-threaded client server in C to handle multiple concurrent users over a network, implementing search, addition, and deletion capabilities within a binary search tree database.