

# Eddy Abban

609-906-1772 | abban16204@gmail.com

## EDUCATION

**Tufts University**, Medford, MA  
Bachelor of Science in Computer Engineering  
GPA: 3.76

Expected Graduation: May 2025

## TECHNICAL EXPERIENCE

### **Tufts Computer Architecture Lab**

September 2024 – Present

*Research Assistant (Louis Stokes Alliances for Minority Participation Program)*

- Evaluate the impact of different heatsinks and backside power on advanced hotspot formation in processors within data centers using thermal, power, and performance modeling tools, such as Sniper, 3D-ICE, and McPat.
- Updated a complex code base to migrate the research project from RedHat 6 to RedHat 8 machines

### **LinkedIn**

May 2024– August 2024

*Software Engineering Intern*

- Designed and implemented a high-performance file transfer service using **Golang** and **gRPC** to effectively transfer log files from 15,000+ network switches to monitoring servers, enhancing error visibility and providing critical data for analysis.
- Developed a user-friendly Command Line Interface (CLI) tool that enables seamless examination of log files stored on remote servers. Users can easily select specific timeframes and network switches to download relevant logs for further analysis

### **Google**

May 2023– August 2023

*STEP Intern*

- Built a Dashboard used by 100+ engineers using **SQL** to monitor and debug jobs and workflows for Google's index-building infrastructure, which supports the search algorithms for many Google products and services
- Designed and implemented charts that allowed users to view the number of running processes and the error status of failed processes. This helped engineers track the collective system status and performance at all scales, which improved engineering velocity and provided solutions to cost and performance questions
- Expanded and tested data pipelines and workflows using **C++** and **Python** to ensure data quality and improve the dashboard's performance. This allowed users to view the rate at which jobs failed and their deployment status

### **Microsoft and Cyborg Mobile**

June 2022 - August 2022

*New Technologist Intern*

- Built a web application to expose high schoolers to possible careers using **React** and **Redux** in an Agile environment with a team of 4 interns
- Leveraged the BeautifulSoup Web Scraping Library to collect information from the Bureau of Labor Statics website to provide users with a more extensive range of careers and created an algorithm to match users with careers

## COMMUNITY LEADERSHIP

### **Tufts Department of Electrical and Computer Engineering**

September 2024 – Present

*Junior Design Teaching Assistant*

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- Guided students through the process of designing, building, and testing a robot to perform wall detection, color detection, line following, and server communication over WIFI
- Conducted regular office hours to assist students with project planning, code debugging, and circuit troubleshooting.
- Attended workshops and training sessions to stay current with best practices in teaching, learning, and lab safety

## **Tufts Chapter of the National Society of Black Engineers**

September 2021 - Present

### *Vice President, Programs Chair*

- Organized events to improve and unite the Black engineering community at Tufts, including underclassmen mixers, Arduino technical workshops, engineers of color gala, major advising nights, and various company visits and collaborations
- Mentored and trained new executive board members to facilitate event planning and organizational skills

## **Tufts Black Students in Computer Science**

September 2021 - Present

### *Professional Programs Chair, Secretary*

- Organized events technical and professional events to support Black Computer Science students at Tufts, such as leet code workshops, resume workshops, technical and behavioral interview workshops, and Python workshops
- Managed room bookings and meeting logistics, ensuring efficient and organized events.

## **Tufts Department of Computer Science**

January 2023 – May 2024

### *Data Structures Teaching Assistant*

- Held office hours to help students write and debug code for projects and homework
- Graded and commented on student code for functionality, readability, and modularity
- Assisted course instructor with course organization and scheduling

## **SKILLS**

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- **Programming Languages:** C, C++, Java, Rust, Golang, Python
- **Software Development Tools:** Git and GitHub, Linux, VS Code, SQL, Docker
- **Hardware Description Languages:** VHDL, Verilog

## **CLASS PROJECTS**

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### **GShare Branch Predictor Simulation**

- Created an accurate GShare branch predictor with configurable size and global history to simulate its impact on performance using the Sniper Simulator

### **Cache Simulator**

- Developed a cache simulator with configurable associativity, cache size, and block size to simulate the effects of different cache sizes when running memory-intensive workloads.

### **Computational Thinking Education Robot**

#### *Senior Design Project*

- Developed an educational robot capable of receiving remote commands via WebSockets and Bluetooth, utilizing servo motors for movement and ultrasonic sensors for environmental sensing.
- Designed and implemented a custom PCB to enhance system reliability, maintainability, and overall robot performance.

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## AWARDS & HONORS SOCIETIES

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### Phyllis J. Karno Dean's Award

May 2023

- Awarded to sophomores who demonstrate academic excellence and leadership on or off-campus

### IEEE Eta Kappa Nu

October 2024

- The honor society of IEEE promotes excellence in the profession and education with ideals of Scholarship, Character, and Attitude