

## EDUCATION

**University of North Carolina at Chapel Hill** – Chapel Hill, NC

Expected Jun 2027

*Computer Science, B.S.*

- **Coursework:** Discrete Mathematics, Data Structures and Analysis
- **GPA:** 4.00

### Honors and Awards

- Carolina Scholar (full scholarship)
- Honors Carolina

## EXPERIENCE

**General Safety** – Greenville, NC

May 2023 - present

*Founder/CEO*

- Founded a startup w/ team of 5 to build a smarter stop-arm camera for 100X less than competitors (\$30 vs. \$3,000)
- Built an IoT camera on ESP32 microcontroller with C++ and a web interface with JS/React
- Architected AWS cloud infrastructure with NoSQL DB, RESTful APIs, and an MQTT to communicate with cameras.
- Coordinating closely with stakeholders and working on deploying on Pitt County Schools' 200+ buses
- Received a \$1,000 grant from Amazon

**University of North Carolina at Chapel Hill** – Chapel Hill, NC

Sep 2024 - present

*Researcher*

- Working with Dr. Faisal Syed at UNC School of Medicine on using deep neural networks to analyze ECGs.

**Pitt Pirates Robotics** – Greenville, NC

Aug 2020 - June 2024

*Software/R&D*

- Trained a deep neural network with PyTorch to achieve real-time object detection.
- Deployed model on a Linux-based CUDA-enabled edge processor
- Designed website with Figma and built it out with Tailwind/Vercel

**East Carolina University** – Greenville, NC

Feb 2020 - April 2023

*Lead Author*

- Conducted research into applying federated machine learning in the field of healthcare data analysis.
- Used TensorFlow-Federated to train federated models and Pandas/NumPy to perform data processing.
- Presented my findings at East Carolina University's ISS Symposium.

## LEADERSHIP AND COMMUNITY INVOLVEMENT

**The Daily Reflector** – Greenville, NC

Dec 2022 - present

*Columnist*

- Regularly featured voice on issues ranging from technology to economic policy.

**Mozilla** – San Francisco, CA

Dec. 2023 - present

*Open-Source Contributor*

- Contributor to bugbug, a Mozilla project aimed at using ML to classify bugs

## ADDITIONAL INFORMATION

- Highly proficient in Python, JavaScript, and Java.
- Proficient in Rust and C/C++.
- Experienced in cloud applications, full stack development, machine learning, and computer vision.
- Fluent in Chinese.