

Education

Georgia Institute of Technology
B.S. Computer Science, Spring 2022

GPA: 3.83 Atlanta, GA
August 2019 - Present

- Selected courses: Deep Learning, Machine Learning, Automata and Complexity, Computer Vision, Objects and Design, Computer Organization and Programming (Intro to C / Assembly), Database Systems, Information Visualizations, Honors Linear Algebra with Abstract Vector Spaces, Cognitive Science

Selected Experience and Projects

More projects I have worked on can be found on my GitHub: <https://www.github.com/2019aliu>

- **Software Engineering Intern** Atlanta, GA - remote
NCR Corporation May 2021 - August 2021
 - Created Progressive Web App (PWA) version of NCR's Emerald POS from ideation to deployment, providing offline functionality for nation-wide grocery chains
 - Implemented proof of concept of cryptocurrency payment for Emerald using the Rinkeby testnet
 - Technologies used: TypeScript, IndexedDB, Workbox, React.js, Nest.js, Figma
- **Software Development Intern** Rockville, MD - remote
S&C Electric May 2020 - August 2020
 - Led the design of backend, implementation, testing, and documentation of an application to monitor and manage 10000s S&C devices
 - Redesigned and implemented backend microservices and proxy to retrieve data from S&C Electric's devices, resulting in complete elimination of excessive data schema and 4x performance gain
 - Collaborated with design team to redesign a user-friendly interface, and implemented the interface with React and Electron to streamline and optimize code base
 - Technologies used: Java, JavaScript, Redis, Spring Boot, WebSocket, GraphQL, Apollo, React.js, Electron.js
- **Software Development Intern** Greenbelt, MD
Fluency Security Corporation June 2019 - August 2019
 - Developed a web-based trouble ticketing system, FasterIncidentResponse, for use at client demonstrations
 - Unit tested and documented log management software
 - Technologies used: Golang, MongoDB, Bootstrap, Vue.js, Node-RED, Postman, Markdown
- **TAG ("TAG")** Atlanta, GA
Create-X: Idea to Prototype January 2020 - April 2020
 - Created a tracking device that has better range than most commercially available tracking tags by utilizing Global Positioning System (GPS)/Bluetooth/Wifi technology
 - Used GPS to determine vicinity of device within 200 feet and Bluetooth/Wifi/Ultrasound to identify exact location through visual and auditory cues
 - Technologies used: Android SDK, Java, XML, Google Nearby Messages API, Google Maps API
- **Product Manager and Team Lead** Online
Develop For Good September 2020 - December 2020
 - Managed a team of designers and developers to create a mobile application to aid distributing resources for the Yemen crisis
 - Maintained communication with Yemeni clients to understand the product's specifications and deliver designs and product updates
 - Technologies used: Figma, React Native

Research Experience

- **FunTech Group** Atlanta, GA
GT FinTech Lab March 2021 - January 2022
 - Discover patterns in language used by the Federal Reserve correlating to stock trends
 - Conduct weak supervision to clean data and identify topics in financial documents
 - Analyze sentiment of Fed statements to understand Fed opinions on various market sectors
- **Move2Music** Atlanta, GA - remote
Parikh Lab August 2020 - December 2020
 - Researched uses of recurrent neural networks and reinforcement in generating music from video footage of dance
 - Used modern encoding techniques and LSTMs to prototype pairing dance video with appropriate music

Skills

Languages: Java, Python, JavaScript/TypeScript

Infrastructures and Frameworks: Git, Node.js/V8, React.js, SCSS, WebSocket, MongoDB, Firebase, Keras, Tensorflow

Software: Android Studio, Figma, Jupyter Notebook

Campus Organizations

- **Executive Board Member, GT Pianoforte** Atlanta, GA
Georgia Tech September 2020 - Present
 - Redesign website for the organization using Wordpress
 - Manage piano jam sessions and manage social media on Discord
 - Play piano at concerts and socialize with other members of the club
 - Previous statuses: Member: January 2020 - September 2020
- **Social Committee Member, Georgia Tech Swim Club** Atlanta, GA
Georgia Tech August 2020 - January 2021
 - Organize and manage funds for social events for the swim club, such as weekly virtual trivia and other socially-distanced events
 - Practice, compete, socialize, and volunteer with the members and coaches of the swim club
 - Qualified for multiple events in the 2020 College Club Swimming National Championship (unfortunately cancelled)
 - Previous statuses: Member: August 2019 - July 2020