

Alexander Y. Liu  
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2019aliu.github.io

## Education

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

GPA: 3.8 Atlanta, GA  
*August 2019 - Present*

- Selected courses: Introduction to Artificial Intelligence, Introduction to Computer Vision, Objects and Design, Computer Organization and Programming, Combinatorics, Honors Linear Algebra with Abstract Vector Spaces, Discrete Mathematics, Statistics and Applications, Macroeconomics

## Skills

**Languages:** Java, Python, JavaScript/ES6

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

**Software:** Android Studio, Figma, Jupyter Notebook

## Experience

Be sure to check out my GitHub! You can find here: <https://www.github.com/2019aliu>

- **Software Developer Intern** Rockville, MD - remote  
*S&C Electric* *May 2020 - August 2020*
  - Led the design of backend, implementation, testing, and documentation of an application to view and edit settings of all S&C products, will be used to monitor 10000s of devices
  - Redesigned and implemented backend microservices and proxy to retrieve data from S&C Electric's devices, resulting in 4x speed up and 99% reduction in the schema used to retrieve data
  - Collaborated with design team to redesign a user-friendly interface, and implemented the interface with newer technologies (React, Electron) to reduce code base size significantly
  - Technologies used: Java, Javascript, Redis, Spring Boot, WebSocket, STOMP, GraphQL, Apollo Server + Client, React.js, Electron.js
- **Software Developer Intern** Greenbelt, MD  
*Fluency Security Corporation* *June 2019 - August 2019*
  - Developed a web-based trouble ticketing system, FasterIncidentResponse for use at client demonstrations
  - Created developer's guide documentation
  - Unit tested log management software to find bugs
  - Drove trucks and wired ethernet cables
  - Technologies used: Golang (including Gin server), MongoDB, Bootstrap, Vue.js, Node-RED, Postman, Markdown

## Research

- **Move2Music** Atlanta, GA - remote  
*Parikh Lab* *August 2020 - Present*
  - Research uses of recurrent neural networks and reinforcement in generating music from video footage of dance
  - Using modern encoding techniques and LSTMs for proof of concept to pair dance video with an appropriate music
- **Migraine Research** Great Falls, VA  
*Neuroscience Research Lab* *June 2018 - January 2019*
  - Explored two-dimensional materials for inhibition of the critical pathway in migraines
  - Employed high-performance CPU cluster and slurm management to increase computation speed
  - Research proposal accepted by neuroscience research lab, received guidance and \$2400 funding for project