

# Vignesh Suresh Kumar

(470) 217-1987 | vignesh.sureshkumar@gatech.edu | linkedin.com/in/vigneshsk1 | github.com/vigneshsk17

## Education

### Georgia Institute of Technology

Bachelor of Science in Computer Science, Minor in Business Leadership

Courses: Data Structures & Algorithms, Java OOP, Systems Programming, Android Object Design

Awards: ADP Henry Taub Scholarship | GPA: 3.9/4.0

Expected Graduation: May 2026

Atlanta, GA

## Experience

### Meta & Major League Hacking

June 2024 – Present

Production Engineer Intern

- Developing real-world projects utilizing relevant SWE and SRE skills with mentorship from Meta engineers.
- Enrolled in 12-week hands-on curriculum covering key SRE concepts, augmented by events led by industry experts.
- Working with 10+ interns to create a thoroughly developed portfolio utilizing industry best practices and services.

### Machine Learning Research Intern

September 2023 – Present

Fung Group

Atlanta, GA

- Implemented a custom variant of the SZ3 framework to compress datasets by 50x with minimal error margin.
- Developing a Graph Neural Network for <1 second compression of volumetric data while reducing dimensionality.
- Working with a cross-functional team of researchers to design cutting-edge ML models for quantum chemistry.

### Robotics Engineer Intern

August 2023 – Present

VIP – Automotive LIDAR

Atlanta, GA

- Led team of 4 interns in an initiative to migrate from ROS to ROS2 and facilitating rewrites of custom dependencies.
- Presented technical proposal regarding the migration to lead engineers and gained widespread approval.
- Utilized native multi-threaded support in Robot Operating System 2 to 4x path planning computations using LIDAR.

### Software Engineer Intern

January – May 2023

System Technology Works

Peachtree Corners, GA

- Designed 10+ movements for humanoid robot Zeus2Q, including grabbing and an algorithm for bipedal walking.
- Integrated the NVIDIA Riva SDK to enable real-time conversational AI utilizing industry leading LLMs for Zeus2Q.
- Prepared technical documentation videos for Zeus2Q's interfacing Python API, intended for early customers.

## Projects

### Unwrappd | Android, Firebase, Java, Spotify API | [GitHub](#)

- Led team of 5 in developing an Android app for Spotify users to generate and save their Spotify statistics year-round.
- Pulled statistics and music samples from Spotify API and Firebase to facilitate back-end user auth and cloud storage.
- Utilized **Scrum**, an Agile methodology, to organize meetings & delegate tasks effectively within weekly sprints.

### GT Reserve | AWS Lambda, S3, Python, Selenium, JavaScript, React | [gt-reserve.vercel.app](#)

- Created a student-friendly library room scheduling app as an alternative to Georgia Tech's existing process.
- Hosted AWS Lambda functions to automate Selenium scraping of data every 10 minutes, stored within S3 Buckets.
- Designed a clean and responsive React page that displays bookings with advanced sorting and filtering.

### CLI Shortener | MySQL, Rust, Axum, SQLx | [GitHub](#)

- Engineered an efficient link shortener tool which can generate 500 million+ unique shortened links.
- Integrated MySQL and SQLx to ensure reliable storage and up to 5 concurrent retrievals of shortened links.
- Increased overall efficiency by 20% by utilizing Rust's asynchronous capabilities and Axum web framework.

## Skills

**Languages:** Java, Kotlin, Python, C, C++, Go, Rust, SQL, JavaScript/Typescript, Bash, F#

**Technologies:** Android, Firebase, Docker, AWS, Git, GitHub, Selenium, React, MySQL, SQLite, Robot Operating System

**Concepts:** Data Structures and Algorithms, Mobile App Design, Cloud Computing, Machine Learning, Robotics