

Gautham Raju

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EDUCATION

- **University of Texas at Austin**

Bachelor of Science in Computer Science; GPA: 3.8/4.0

Austin, TX

Aug. 2019 – May. 2023

EXPERIENCE

- **Toyota Connected**

Software Engineer Intern

Plano, TX

May. 2022 - Present

- **Reduced Tech Debt:** Upgraded Spring and Spring Cloud dependencies in addition to other Java libraries in 11 percent of the out of sync applications and deployed them to Azure Kubernetes Service.
- **System Design:** Expedited re-design efforts for the Telematics Service Provider used by Toyota vehicles by exploring advantages and trade-offs of shifting from HTTP to MQTT as the underlying protocol and implementing a distributed state machine or event sourcing pattern.
- **Test Suite Enhancements:** Used Golang to upgrade command line arguments in our test suite to differentiate testing for newer generation vehicles while providing backwards compatibility for older versions.
- **Global Hackathon:** Won 2nd at a global, Toyota-wide hackathon of 400 full-time engineers. (see Projects)

- **Other World Computing**

Software Engineer

Woodstock, IL

Apr. 2021 - Present

- **Dockerized Health Checks:** Built database and application specific health checks for every project in the back-end code-base running on docker to automatically alert the team when errors occur or an app shuts down.
- **SQL efficiency:** Refined existing SQL schemas to accelerate processes bottlenecked by inefficient database and API calls.
- **Frontend Improvements:** Used React.js and .NET C# to create tabular displays of stock quantities and order backlogs and added filtered search capabilities in the company's internal website to improve user experience for the factory department.
- **Test Suite Enhancements:** Implemented unit tests in over half of the projects in the codebase to improve overall test coverage by 24 percent.

PROJECTS

- **Drunk Driving Detection with Thermal Imaging**

Toyota SWARM Hackathon

Plano, TX

July. 2022

- **Tech Lead:** Led Back-end development and supervised Machine Learning development on an eleven-member team to design and program a model and demo using HTML, CSS, JavaScript front-end, Django back-end, and Tensorflow ML.
- **Execution:** Predicted a driver's sobriety with an accuracy of 87 percent by capturing a thermal image and passing it through a CNN model with the results displayed on a Django site. Collaborated with Toyota Groups to develop a viable go-to-market strategy and presented it to the board of directors.
- **Results:** Won 2nd place at the hackathon, resulting in a patent in progress and additional funding for the project.

- **NLP Cyberbullying Detector**

Project Lead

Austin, TX

Oct. 2021

- **Backend/API:** Led back-end and worked on front-end development to program a plugin that automatically detects and flags cases of cyberbullying using an HTML and CSS front-end and Django-python back-end.
- **NLP algorithm development:** Combined Google's Natural Language Processing API, sentiment analysis, and a compilation of web-scraped online lists of profanity to build a model that can process sentences and output a cyberbullying score to return to the user.

PROGRAMMING SKILLS

Languages: Java, Python, JavaScript, C++, SQL, Swift, Go

Technologies: Git, AWS, MySQL, React, XCode, Docker

Coursework: Data Structures, Object-Oriented Programming, Algorithms, Discrete Math, Operating Systems, Computer Architecture, Linear Algebra, Calculus, Networks, Virtualization, Data Mining