Keerthi Ramesh

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Education

Michigan State University   **May 2025**
Bachelor of Science, Computer Science   *East Lansing, MI*
GPA: 3.75/4.0

Experience

KPIT   **Jun 2025 - Present**
Software Engineer Trainee   *Novi, MI*
- Developed Android applications in Kotlin using Android Studio as part of training projects, applying mobile development concepts in practice
- Investigated and debugged legacy software for ARM-based systems, including cross-compilation of C code between Windows and Linux and analysis of Linux system calls
- Gained hands-on exposure to embedded systems, Raspberry Pi integration, and low-level troubleshooting techniques

KPIT   **Jun 2024 - Aug 2024**
Software Engineering Intern   *Novi, MI*
- Developed a local-server web app with Flask and SQLite to control BLE beacons on a Raspberry Pi, enabling test data to be streamed via advertising packets to automotive head units without requiring a connection
- Built a BLE-based ECU emulator to replace a Classic Bluetooth solution, achieving up to 90% power reduction and aligning with stringent automotive low-power requirements
- Collaborated in a 6-person Agile team to deliver two functional proof-of-concept systems, including one for an OEM client for early prototype testing

Projects

Capstone Project - Plastic Scanner   **Aug 2024 - Dec 2024**
University Capstone Project
- Led embedded development for an ESP32-based plastic scanner for GM, integrating infrared sensors, and an on-device neural network to classify plastic types based on reflectivity
- Implemented firmware to collect multi-wavelength reflectivity data and infer plastic type in real-time, displaying results on a hardware display and sending it to a companion mobile app
- Collaborated with app and web teams to enable remote retraining and reflashing of the neural network model, ensuring field-deployable scanners could be updated by non-technical users

Cloud-Based Note Taking Web App   **Dec 2023 - Feb 2024**

- Created and deployed a fully responsive cloud-based note-taking app using Angular, NestJS, and Firebase, enabling cross-device access and real-time editing of notes
- Designed a REST API with JWT authentication for secure session management, hosted backend on Google App Engine and frontend on AWS S3 for high availability and scalability
- Integrated Firebase for real-time sync and storage; implemented responsive UI with Tailwind to support both desktop and mobile workflows

Skills

Languages: HTML, CSS, Javascript, Typescript, C/C++, Python, Java
Frameworks: Angular, Tailwind CSS, NodeJS, Flask, Django, NestJS
Tech: SQL, Firebase, Git, Google Cloud, AWS, Docker, Figma