NIVETHA AMMUNDI MAGESH

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Education

California State University, Long Beach <div align="right">**Aug 2023 – May 2025**</div>

Master of Science in Computer Science — CGPA: 3.44/4.0

- Relevant Coursework: Advanced Analysis of Algorithms, Object-Oriented Analysis and Design, Blockchain Technology, Software Engineering, Distributed Computing, Computer Architecture, Artificial Intelligence

Experience

Software Engineer, Zoho Corporation, India <div align="right">**May 2021 – May 2023**</div>

- Developed custom bot commands in **ServiceDesk Plus**, an IT service management platform, enabling users to perform actions in **Microsoft Teams** by integrating on-premise systems via **Azure**, boosting platform interaction by **40%**.
- Revamped the database schemas in **PostgreSQL**, resulting in a **30% improvement in overall query performance.**
- Designed a telephony feature using **Java and Ember.js**, managing both front-end and back-end development. Enabled seamless calls and secure log access for users, resulting in a **40% increase in user engagement.**
- Resolved **10+ customer issues** and **5+ bug fixes weekly**, including **complex SQL queries** to fetch customer-requested data, and documented **frequent errors** to minimize the resolution time by **20%**.
- Upgraded **JRE** version from **1.8.0292** to **1.8.0352** in ServiceDesk Plus, **removing 24 obsolete files**, which reduced security vulnerabilities by **40%** and improved **application performance by 10%**.

Technical Skills

Languages: Java, C, C++, JavaScript, TypeScript, Python, SQL

Web Technologies & Frameworks: Spring Boot, MySQL, PostgreSQL, MongoDB, React, Angular, Ember JS, J2EE, HTML5, CSS3, Bootstrap, jQuery, AJAX, REST API, XML, Servlet, JSON

Tools & IDEs: Docker, Kubernetes, Postman, GitHub, Linux, VirtualBox, VS Code, Eclipse, IntelliJ, Sublime Text

Cloud Platforms: AWS (EC2, Lambda), Microsoft Azure

Projects

Scalable Retrieval-Augmented Generation (RAG) with Distributed Systems | *React, Python* <div align="right">**Oct 2024**</div>

- Built an interactive system that accepts user prompts through a web interface and returns accurate, real-time responses by retrieving relevant information from live documents using **FAISS** and generating answers with **Google T5 Flan**.
- Implemented federated learning with the **Flower** framework to train models across decentralized client systems without sharing raw data, resulting in a **15%** increase in accuracy and **40%** reduction in response time.

Web-Based Bug Tracking System | *React, Spring Boot, Java, MySQL* <div align="right">**Sept 2024**</div>

- Engineered a full-stack application to streamline bug tracking, cutting retrieval time by **40%** through normalized schema, role-based access, XML export, and iterative feature delivery.
- Spearheaded a secure login system with tiered roles (Admin, Level 1–3), enabling secure access tracking and preventing unauthorized use; achieved **95% test coverage** across **9+ modules** using **JUnit** and integration testing.

Expense Tracker Web App | *Angular, Angular Material, Typescript, Firebase* <div align="right">**Feb 2021**</div>

- Constructed a responsive Angular expense tracker with **component-based architecture**, storing user data in **local storage** and deploying on **Firebase**, improving efficiency by **70%**.
- Structured the application using **reusable components** and implemented **reactive form validation**, enabling clean separation of concerns and improving **maintainability** and **scalability** of the codebase.

Certifications

- **Oracle Certified Associate, Java SE 8 Programmer** - Secured **81%**, earning official certification from Oracle.
- **AWS Certified Developer - Associate** - Certification provided by Amazon Web Services (AWS).
- **Programming in C++** - Certification provided by NPTEL (National Programme on Technology Enhanced Learning), IIT Kharagpur, India.

Other Work Experience

Government Affairs Student Assistant, Cal State University, Long Beach <div align="right">**May 2024 – Present**</div>

- Coordinate schedules, plan events, and design campaign posters for **10+ student government projects**; record minutes for **100+** government board meetings.
- Engage with over **50 students** and staff at the reception desk, managing calls and administrative tasks.

Achievements

- **Won** the blind coding competition at Elements'2K19, a national-level symposium organized by Sri Ramakrishna Engineering College, outperforming 250+ participants in timed coding challenges.