

VARSHA KARANAM

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EDUCATION

Indiana University Bloomington

Masters in computer science (GPA: 3.8)

SSN College of Engineering

Bachelor of Technology in Information Technology (GPA: 8.84)

Bloomington, IN

Expected Graduation Date: May 2025

Chennai, INDIA

Graduation Date: May 2023

SKILLS

Languages and databases: C, C++, Python, Html5, CSS3, Javascript, MongoDB, MySQL and SQL

Frameworks: Flask, Streamlit, Reactjs, NodeJs, ExpressJs, and AngularJs.

Tools: Git, Jira, Postman, ThunderClient, Figma, Stripe, VSCode, Slack, Agile, Zookeeper and JMeter.

WORK EXPERIENCE

Aaga Tech

Chennai

Software Engineering Intern

May 2024 – August 2024

- Built a robust feature for auto-generating screening questions, incorporating real-time data analysis and resulting in the generation of over 1,000 unique questions tailored to specific job roles and industries.
- Configured advanced logging protocols with rotating file handlers, optimizing data retention policies and ensuring compliance with industry standards.
- Completed API development 5 days ahead of schedule, optimizing project timelines.
- Connected Claude AI and OpenAI based on provided preferences, selecting and integrating the appropriate model for the task.

SSN College Of Engineering

Chennai

Research Assistant

July 2022 – April 2023

- Authored a paper on diagnosing Alzheimer's using Log Mel Spectrograms and Vision Transformer deep learning classifiers, contributing to a research team that presented at an international conference with over 300 attendees
- Achieved an accuracy score of 85.7%, an F1 score of 0.923, and a recall score of 1 using Log Mel Spectrograms and Vision Transformer, outperforming the MFCC and Random Forest approach.
- Collaborated with a research team to refine the paper, achieving 100% acceptance and enhancing visibility by publishing in Springer.

Ecokart Retail Pvt Ltd

Chennai

Software Engineering Intern

September 2021 – May 2022

- Engineered a Dynamic FAQ Page using React.js, Node.js, and MySQL, enhancing user experience by providing instant access to over 200 frequently asked questions.
- Established RESTful APIs with Node.js and Express.js, ensuring smooth communication between the frontend and backend during the startup's early stages.
- Designed scalable MySQL database schemas to efficiently manage and retrieve FAQ data, supporting growth from 500 to over 5,000 entries as the startup expanded.
- Implemented a Content Management System (CMS), allowing non-technical team members to easily update FAQ content without requiring developer assistance.

PROJECTS

Food Delivery Web App

May 2024 – June 2024

- Engineered a full-stack food delivery application utilizing React.js, Express.js, MongoDB, Bcrypt, and JWT, featuring advanced food search by category, and personalized order tracking
- Designed and implemented an efficient CMS within the admin panel, facilitating seamless management of food items and orders, and reducing content update time by 20% through optimized CRUD operations.
- Improved order processing workflow by introducing real-time tracking and status updates, leading to a 30% decrease in customer support inquiries.
- Integrated Stripe for secure and efficient payment processing, enhancing transaction speed.

Benchmarking Of Databases using JMeter

March 2024 – May 2024

- Conducted comprehensive load testing and benchmarking of distributed databases, including MongoDB, Apache Cassandra, and Amazon DynamoDB, evaluating performance under varying workloads of 50,000 records and 800,000 records.
- Analyzed CRUD operation latency, revealing Amazon DynamoDB's superior performance with a latency of 0.93 seconds for 50,000 records, while MongoDB had a latency of 1.50 seconds.
- Executed test scenarios for workloads of 50,000 and 800,000 records, demonstrating that Amazon DynamoDB exhibited lower latency (2.67 seconds) compared to MongoDB (3.40 seconds) for larger datasets.