

KARUNAKAR REDDY KALLA

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EDUCATION

Master of Science in Computer Science, George Mason University, Fairfax Aug 2022 - May 2024
Coursework: Data Structures and Algorithms, Database Systems, Software Testing, Programming Tools, Software Engineering for WWW, Software Architecture.

Bachelor of Computer Science, Vellore Institute of Technology, Amaravathi, India June 2018 – Apr 2022

SKILLS

Programming & Frameworks: Python, JavaScript, Java, HTML, CSS, SQL, Spring Boot, Angular, React, Node.js, Hibernate, Spring MVC, JPA.

Databases, Cloud & Tools: MongoDB, MySQL, Amazon AWS, Jenkins, Git, GitHub, Maven, VS Code, Eclipse.

Testing & APIs: Junit, Mockito, Postman, RESTful APIs.

EXPERIENCE

Web Developer June 2024 – Present
Hoosier Community Network, USA

- Led the development of scalable web applications using the MERN stack, optimizing system architecture and handling over 50,000 daily user requests.
- Engineered reusable React components and robust Node.js APIs, reducing front-end development time by 30% and improving system reliability.
- Collaborated with cross-functional teams to streamline workflows, resulting in a 25% boost in team productivity and project delivery.

Software Developer Intern Jan 2022 - May 2022
Shiash Info Solutions, Chennai - India

- Enhanced backend services in Java and Spring Boot, improving data retrieval efficiency by 20% and enabling the system to process 10,000+ daily requests
- Structured MySQL database schemas and executed RESTful APIs, reducing latency and elevating user experience.
- Led Agile processes, achieving a 99% defect resolution rate and ensuring high-quality project delivery.

Front-end Developer Intern Aug 2021 - Dec 2021
Smile Foundation, Hyderabad - India

- Developed and refined front-end components with React and Angular, resulting in a 25% improvement in page load times and handling capacity for over 15,000 daily users.
- Designed responsive UI layouts and effectively integrated RESTful APIs, which reduced latency and significantly boosted user experience.
- Engaged in Agile processes, achieving a 98% defect resolution rate and ensuring the delivery of high-quality projects.

PROJECTS

Student Survey Management Portal (MERN Stack, HTML, CSS, AWS)

- Developed a robust backend API using Node.js and Express.js, integrated MongoDB for efficient data management, and implemented secure JWT-based authentication, these efforts reduced feedback submission time by 40%
- Deployed the application on AWS with Docker and Kubernetes, creating a scalable and resilient infrastructure that ensures high availability and seamless performance under heavy user load.

Wellness Tracking System (ReactJS, NodeJS, JS, HTML, CSS, MongoDB, Amazon AWS)

- Engineered a comprehensive fitness web application using ReactJS, NodeJS, and MongoDB, incorporating features such as real-time chat, subscription services, and dynamic posts, which significantly enhanced user engagement.
- Deployed the platform on Amazon AWS, leveraging cloud services to support multiple user types and maintain high availability and performance across varying usage patterns.

Multi Agent LLM Validation (GitHub Copilot, OpenAI GPT-4, OpenAI GPT 3.5, Google Bard)

- Designed and implemented a multi-agent LLM validation workflow, integrating OpenAI GPT-4, GPT-3.5, Google Bard, and Cohere to streamline code review processes, reducing review time by 30% and minimizing context switching for developers.
- Automated variable naming and code quality improvements, leading to a 25% reduction in manual effort, while significantly improving overall development efficiency and consistency across projects.