Srinivas Mulagala

✉ sm250@rice.edu | 📱 (832) 806-9877 | ⚙ Github | 🔗 Linkedin | 🌐 PortFolio

Education

Rice University   08/2023 - 12/2024
Master's in Computer Science   *GPA: 3.8 / 4.0*

Gitam University   06/2019 - 04/2023
Bachelor of Technology in Computer Science and Engineering   *GPA: 9.2 / 10.0*
- Graduated with Distinction

Experience

OpenStax (Houston, TX)   **Software Development Intern**   06/2024 - Present
- Optimized the learner study section by redesigning the code architecture, reducing page load times from **20 seconds to under 2 seconds** through caching, lazy loading, and modular code design.
- Integrated end-to-end and unit testing frameworks for rigorous, automated integration testing across React components and APIs, ensuring stable releases with over **95%** code coverage and reducing post-deployment bugs by **40%**.
- Developed and maintained a responsive, user-centric front-end architecture for an e-learning platform using **React, TypeScript, Ruby on Rails, and PostgreSQL**.
- Architected a modular notification system capable of sending customized alerts, reminders, and progress updates to users via email, improving user re-engagement by **18%**.

Rice University (Houston, TX)   **Research Scientist**   05/2024 - 08/2024
- Led the development and deployment of a community-based web application, delivering a functional prototype within a **3-month** timeframe. Managed the full software development lifecycle, from requirement gathering through to deployment and maintenance.
- Engineered and deployed a custom analytics module to track user interactions, which provided insights into engagement metrics, feature usage patterns, and dropout points; the resulting data informed targeted enhancements, driving a **15%** increase in feature engagement.

MPB Ark Exim (VSKP, IND)   **Software Engineering Intern**   01/2023 - 08/2023
- Upgraded and optimized scalable APIs and background processes, achieving **25ms** response times, by leveraging advanced technologies such as **React, Node.js, and MongoDB**. Designed and implemented microservices to decouple key functionalities, improving scalability and allowing independent deployment of services.
- Introduced CI/CD pipelines and **Docker** containerization to streamline the development process, cutting deployment times by **50%** and enabling seamless rollback and version control for rapid iterations.
- Played a key role in the code review process, evaluating and optimizing team members' code to uphold best practices, identify potential vulnerabilities, and ensure consistent code quality, leading to a **20%** reduction in production bugs.

R2i2 Technologies (BLR, IND)   **Software Development Intern**   06/2021 - 09/2021
- Enhanced web application responsiveness by closely collaborating with UX/UI designers, translating designs into pixel perfect components.
- Implemented enterprise applications of the Onbo Platform using **React, Figma, and SASS** and integrated CI/CD pipelines by utilizing **Git** for version control, which streamlined the deployment process. This innovation reduced the deployment cycle by **30%**, boosting development agility and product time-to-market.

Projects

- **IPL Auction:** Engineered a sophisticated **MERN Stack** Application simulating the dynamics of an IPL Auction, encompassing complex technical components. Employed advanced techniques, including RSS feed integration for real-time news retrieval, and web scraping using Puppeteer to acquire and process squad data.
- **PixPlate:** Developed a **Generative AI** application utilizing the **MERN** stack providing users with the flexibility to upload photos of a fridge to generate recipes. Utilized **Large Language Models (LLMs)** for precise object detection from user uploaded fridge photos, ensuring accurate identification of ingredients and connected a sophisticated recommendation engine using **TensorFlow's Recommender API**.
- **Efficient Hashing Using Huffman Coding:** Pioneered a novel fusion of hashing and Huffman coding to boost data manipulation efficiency and optimize space utilization. Showcased expertise in extending hashing techniques, and reducing memory consumption for HashMaps through research and algorithm implementation.

Achievements

- Secured a contest rating of **1852 (Top 5%)** on Leetcode (**Python/Java**).
- Designed IPL Auction which secured **3rd place** in the nation wide 24 Hour Hackathon organized by Vignan University.
- Achieved a rank of **4 star** on Codechef (Competitive Coding - **Java/C++**).
- Received a **25%** scholarship for academic performance during bachelor's.

Skills

Languages: Python, JavaScript, Java, C++, Data Structures, Algorithms
Software Development: React, Typescript, jQuery, Node.js, Docker, Kubernetes, DevOps, RESTful API's, REST, GraphQL, Model View Controller(MVC), Relational Databases, SQL, MySQL, PostgreSQL, NoSQL, MongoDB, SaaS, Networking, Scrum, Agile, Site Reliability, UI/UX, Object-oriented programming, Testing, Design Principles, Microservices architecture, HTML, CSS, Functional Programming, Web Apps, Frontend, Backend
Tools/Platforms: Git, Linux, Shell Scripting, Hadoop, Wireshark, Tableau, CI/CD, AWS, Object Oriented Programming