

Sri Sai Ranga Malisetti

PASSIONATE LEARNER & ADDICTED PROGRAMMER

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SUMMARY

Experienced software engineer with 5 years in startups, skilled in web development, operating systems, virtual machines, and cyber-security. Proven ability to build scalable, secure applications and optimize performance across diverse tech stacks. Adaptable problem solver with a strong commitment to quality in fast-paced environments, driving innovation and team success.

SKILLS

Languages	C, C++, JavaScript, TypeScript, Python, Java
Web Development	NodeJS, ExpressJS, Flask, Angular, React, Bootstrap, JQuery, REST API design, HTML/CSS, Flutter, Grunt
Data Management	MySQL, MongoDB, Redis, PostgreSQL, DynamoDB, SQLite, Celery, Elasticsearch, Kafka, RabbitMQ, S3
Deployment Tools	Docker, Kubernetes, Apache, Nginx, EC2, AWS Lambda, Jenkins
Testing Tools	Selenium, LocustIO, Espresso

EXPERIENCE

Thentia Cloud <i>Full Stack Developer</i>	Nov 2023 - Present
<ul style="list-style-type: none">Designed, developed, and maintained enterprise-grade web applications on the Thentia Cloud platform for government regulatory agencies, ensuring compliance with industry-specific legislative requirements.Engineered robust full-stack solutions utilizing PHP for backend development and Angular for dynamic, responsive frontend experiences, integrating RESTful APIs to facilitate seamless data exchange between services.Implemented advanced data security measures by developing custom data wrappers, ensuring structured data availability while enforcing Personally Identifiable Information (PII) masking to comply with privacy regulations and data protection standards.Optimized system performance by architecting and deploying custom cron jobs written in Java, packaged as JAR files, to automate periodic licensing updates, ensuring real-time accuracy and efficiency in regulatory workflows.	
FrontM Ltd. <i>Senior Backend Engineer</i>	May 2021 - Aug 2022
<ul style="list-style-type: none">Designed and developed low-latency, high-performance applications using the proprietary FrontM.js JavaScript framework, optimized for satellite bandwidth constraints in maritime communications. Oversaw development for key clients like Thuraya, OneCare, and other enterprises on the FrontM platform, ensuring adherence to coding standards, best practices, and software development methodologies across the team.Played a key role in the design, architecture, and development of the FrontM.js framework, working directly alongside the CTO, to ensure seamless integration with Node.js and efficient execution within a Serverless Architecture. Leveraged AWS Lambda, API Gateway, and DynamoDB to enhance scalability, cost-efficiency, and high availability.Architected and implemented highly efficient, scalable data pipelines for large file uploads, leveraging AWS S3 pre-signed URLs to optimize performance, reduce latency, and ensure secure, seamless file accessibility on web-based platforms.Developed and deployed multiple micro-applications built on FrontM.js, designed to function within the FrontM ecosystem across web and mobile platforms, providing a seamless, unified user experience for diverse enterprise clients.	
Edgetensor Technologies Inc. <i>Cloud Engineer</i>	Apr 2019 - May 2021
<ul style="list-style-type: none">Collaborated with the Application Development team to design, develop, and deploy a high-performance RESTful backend application server using Flask, MongoDB, and Celery, optimized to handle up to 3 million requests per minute. Performance metrics and server load were rigorously tested with LocustIO to ensure scalability and reliability.Developed an analytics dashboard using the Ngx-Admin Angular framework, enabling real-time data collection, visualization, and GPS tracking updates from the backend server. Integrated WebSockets for continuous real-time GPS updates, ensuring up-to-date location visualization.Partnered with the Android Development team to build a real-time video monitoring application, integrating Computer Vision and Machine Learning models through Java Native Interface (JNI) to enable advanced video processing capabilities.	

EDUCATION

Illinois Institute of Technology <i>Master of Computer Science (Information Security and Assurance)</i>	Aug 2022 - May 2024 CGPA: 3.81/ 4
University College of Engineering(A), Osmania University <i>Bachelor of Engineering (Electronics and Communication Engineering)</i>	Aug 2015 - Apr 2019 CGPA: 8.29 / 10

SOFTWARE PROJECTS

Micro VMM	Mar 2024
<ul style="list-style-type: none">Designed and built a custom hypervisor using the Linux KVM API, leveraging C++ and multithreading for optimized virtualization performance and resource management. Integrated SDL2 for real-time I/O event simulation, enabling graphical rendering and event handling. Focused on scalability, security, and low-latency execution, ensuring efficient management of complex virtual workloads with high performance and stability.	
Custom Java Virtual Machine	Feb 2024
<ul style="list-style-type: none">Developed Hawkbeans JVM, a custom Java Virtual Machine (JVM) supporting a subset of the JVM specification with efficient execution. Gained expertise in Symbolic Resolution, Bytecode Interpretation, Exception Handling, and Garbage Collection. Built a bytecode execution engine to process class files, resolve references, and manage memory with a custom Garbage Collector (GC), ensuring runtime efficiency and compliance with JVM principles.	

PUBLICATIONS

<ul style="list-style-type: none">Malisetti, S. Human Computer Interaction Using Kinect IJRECE_G1290, IJRECE VOL. 7 ISSUE 2 (APRIL-JUNE 2019) ISSN: 2393-9028 (PRINT) ISSN: 2348-2281 (ONLINE)

ADDITIONAL

<ul style="list-style-type: none">Delivered a technical talk on Integrating gRPC with JavaScript at the Chicago JavaScript Group.	Jan 2024
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