

# Sri Sai Ranga Malisetti

PASSIONATE LEARNER & ADDICTED PROGRAMMER

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## SUMMARY

Experienced software engineer with over 5 years in startups, skilled in web development, operating systems, virtual machines, and cybersecurity. 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

<b>Programming Languages</b>	C, C++, Python, JavaScript, TypeScript, Java, PHP, Dart, Bash/Shell, Assembly (x86)
<b>Core Competencies</b>	Data Structures, System Design, API Architecture, Microservices, Distributed Systems, Linux kernel
<b>Frontend Development</b>	React, Angular, HTML5, CSS3, Bootstrap, jQuery, AJAX, JSON, XML, Flutter, REST API integration, Grunt
<b>Backend / API</b>	Node.js, Express.js, Flask, GraphQL, gRPC, REST API design, Celery, WebSockets, Protocol Buffers
<b>Data Management</b>	PostgreSQL, MySQL, MongoDB, Redis, DynamoDB, SQLite, Elasticsearch, Kafka, RabbitMQ, Amazon S3
<b>Cloud / DevOps</b>	Docker, Kubernetes, AWS (EC2, Lambda), Nginx, Apache, Jenkins, CI/CD pipelines, Load Balancing
<b>Testing Tools</b>	Selenium, LocustIO, Espresso, Unit Testing, Integration Testing

## EXPERIENCE

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

## EDUCATION

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

## SOFTWARE PROJECTS

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

## PUBLICATIONS & TECHNICAL TALKS

<ul style="list-style-type: none"><li>Malisetti, S. <b>Human Computer Interaction Using Kinect</b> IJRECE_G1290, IJRECE VOL. 7 ISSUE 2 (APRIL-JUNE 2019) ISSN: 2393-9028 (PRINT)   ISSN: 2348-2281 (ONLINE)</li></ul>	
<ul style="list-style-type: none"><li>Delivered a technical talk on <b>Integrating gRPC with JavaScript</b> at the Chicago JavaScript Group.</li></ul>	Feb 2024