Sai Ganesh Reddy Gunda

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Education

Arizona State University - *Masters in Computer Science; CGPA: 4.0* **Aug 2021 - May 2023**
VIT University - *Bachelors in Information Technology; CGPA: 3.8* **July 2016 - June 2020**

Technical Skills

Languages & Frameworks:Java, C#, Spring (Boot, MVC), Spring Security, Spring Cloud, .NET, JavaScript, Node.js
Cloud & DevOps:: AWS S3, AWS SQS, Azure AD B2C, OAuth2, JWT, REST APIs, PM2, Docker, Kubernetes
Databases: MongoDB, OracleDB, PostgreSQL, Redis (caching), Hibernate ORM, JDBC
Web Technologies: HTML5, CSS, REST API, Angular , JSP, HTML5, CSS, TypeScript, AJAX
Others: Firebase, Strapi CMS, Azure DevOPS, Git, Microservices, Role-based Access Control, Audit Logging, Real-time Processing, Event-driven Architecture, Hyperledger Fabric

Professional Experience

Software Engineer II - *Microchip Technology.Inc, Chandler, Arizona* **June 2022 – Present**

- Designed and implemented an event-driven microservice to automate post-order export compliance checks, integrating address translation, message queues, and dynamic pipeline orchestration.
- Optimized compliance processing by logging VC API interactions, enabling region-specific rules, automated alerting, and data retention with scheduled cleanup, improving processing reliability and auditability.
- Designed and implemented a distributed authentication platform leveraging OAuth2, JWT, and Azure AD B2C to enable secure, token-based SSO across multi-tenant applications, integrating social identity providers and enabling self-service account operations via a role-based access control layer and stateless REST APIs.
- Designed and implemented a scalable, event-driven microservice that replaced legacy schedule-driven systems with real-time SQS messaging to orchestrate transactional order workflows and reliably synchronize with downstream systems via fault-tolerant integrations.
- Created a dedicated site for the Microchip Technology Conference 2024 by customizing ordering, inventory, and fulfillment workflows—enabling attendees to make discounted, tax-free, and shipping-free purchases for in-store pickup at the conference hotel location, with real-time inventory logic and international payment support.

Software Engineer

- Built an automated multilingual translation pipeline leveraging external language services with semantic similarity scoring and confidence-based human review triggers, and developed a secure, role-based translation management platform with JWT-secured REST APIs to scale localization across 10+ languages.
- Led end-to-end migration of 37,000+ content items from Sitecore to Strapi CMS, building automated ETL pipelines, RESTful APIs, and batch-driven backup and image transfer processes, reducing manual effort by 30% and ensuring zero data loss with 24/7 uptime via PM2/NSSM orchestration.
- Enabled sales teams to manage dynamic site banners and FAQs by engineering robust access control, automated database backups, SSL-secured deployments, and seamless API integration with existing Java-based systems, cutting deployment costs and enhancing editor productivity.
- Developed a multi-threaded data integration job to aggregate and validate 130K+ product records daily from 32 external BU APIs, reducing weekly data sync time by 50% and enhancing resilience with automated retries, email alerts, and advanced error handling for high-volume JSON processing.
- Automated scheduled Java console jobs using Spring and SMTP to deliver event-driven email notifications for inventory reports, renewal reminders, quote alerts, product releases, and promotions, boosting customer engagement and efficiency.

Environment: Java 17, Spring Boot, REST APIs, AWS (S3, SQS), SQL Server, MongoDB, Maven, Git, OpenTelemetry, Quartz Scheduler, Windows Task Scheduler, OAuth2, JWT, Email Automation (SMTP)

Software Engineer - *Tata Consultancy Services, India* **Aug 2020 - July 2021**

- Enabled a functionality to improve the net price of active deals for the client by at least 1 percent Resulting in improvement of sales, operations productivity, and partner transaction volume.
- Designed and deployed an automated consumer API to fetch and map missing product data from external sources, streaming to Kafka; improved pipeline accuracy by 15%, correcting BE mapping for $90M in products and directly supporting CX revenue growth.
- Enhanced order deployment process by introducing split functionality for large quantity orders into smaller shipments to expedite delivery, leading to the customer satisfaction.
- Worked in Agile based project environment using Jenkins for continues integration, CI/CD pipeline for deployment, Bitbucket for version control and JIRA for scrum management.

Environment: Java, Spring Boot, REST API, Angular JS, Kafka, SSL/TLS, Jenkins, CI/CD pipelines, Bitbucket, JIRA, MongoDB, Postman

Academic Projects

Secure Hospital System Website | *Java, Spring, MySQL, Angular JS, Hyperledger fabric* **Jan 2022-May 2022**

* Designed and developed a secure hospital system with several security features which can defend the website against Cyber attacks and also developed digital assistants to the website.

American Sign Language Fingerspelling | *Python, posenet, CNN, segmentation, TensorFlow* **Aug 2021-Dec 2021**

* Built a real-time ASL finger spelling translator by interpreting the captured hand gestures and using PoseNet model to generate the wrist points. trained the CNN model with the segmented images to predict the hand signs.

Semantic Search and Tag Prediction | *Python, LSTM, Word2vec, TensorFlow* **Jan 2020-Jul 2020**

* Generated word embeddings using **word2vec** and trained the tag classifier with the resulted embeddings using **Long Short Term (LSTM)** model resulting in a validation loss of less than **5 %**.

Traffic Sign Detection Using Convolution Neural Networks | *Python, CNN, Adam optimizer* **July 2018-jan 2019**

* Designed and fine-tuned a LeNet-based Convolutional Neural Network on the German Traffic Sign Dataset, applying data preprocessing, augmentation, grayscale normalization, and hyperparameter tuning to achieve 96% validation accuracy.

Smart Irrigation System using IOT | *C++, Java, sensors, Node MCU, Embedded C* **July 2018-Jan 2019**

* Worked with a soil moisture sensor, ESP8266-12(Node MCU) and an Arduino board to expand the smart irrigation system which detects the moisture level and controls the flow of water.

Achievements & Extracurricular Activities

Honored with Academic Excellence Gold Model - *Arizona State University, Tempe* **Aug 2021 - May 2023**

Graduate Student Assistant - *Arizona State University, Tempe* **Aug 2021 - May 2022**

Dean's Academic Scholarship Holder - *VIT University, India* **July 2016 - June 2020**