SAI TEJASWI GUNTUPALLI

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Education

University of Houston   **August 2023 – May 2025**
Master of Science in Computer Science

SRM University, AP   **August 2018 – May 2022**
Bachelor of Technology in Computer Science

Technical Skills

Frontend: React, Vue.js, TypeScript, JavaScript, HTML, CSS
Backend: Python, Java, Node.js, Express, Spring Boot, REST APIs, GraphQL, JWT Authentication
Databases: PostgreSQL, MySQL
Cloud & DevOps: AWS, Azure Pipelines, Docker, Kubernetes, Jenkins, Helm, GitOps
Tools & Platforms: Git, Linux, JIRA, Powershell, Intel Advisor, YAML

Work Experience

University of Houston   **September 2024 – April 2025**
Graduate Assistant
- Built University's Tutoring Platform with React for frontend and Spring Boot as backend, supporting 200+ student-athletes to manage sessions and academic tasks by maintaining 97% uptime.
- Implemented JWT authentication for role-based access control in REST APIs using Node.js and Express to reduce unauthorized access.

Turtle & Hughes   **June 2024 – August 2024**
Software Developer Intern
- Developed Commodity Mapping Application with React, Node.js and TypeScript to streamline inventory categorization.
- Engineered secure APIs in Java Spring Boot to process over 1M records weekly, reducing data retrieval time by 65%.
- Implemented automated data sync pipelines with Azure Pipelines (YAML, PowerShell),which reduced manual processing by 45 hours weekly. Enabled real-time inventory management across 40+ warehouses.

Intel   **January 2022 – June 2023**
Software Engineer
- Engineered AdvisorProfile, a Python utility using the Intel Advisor Python API to automate roofline and threading suitability reports for our GPU-accelerated image-processing pipeline.
- Established CI/CD pipelines using Jenkins, Git and Docker for continuous testing and deployment, boosting release speed by 20%.
- Containerized AdvisorProfile as Docker microservice with Helm charts and GitOps for deployment on Intel's Kubernetes cluster,slashing environment setup time by 50%.

Techtantra   **May 2021 – April 2022**
Software Engineer Intern
- Developed CRM infrastructure for Sales team to track client interactions using Vue.js, HTML, CSS, and TypeScript which increased user engagement by 70%.
- Supported the CRM platform by engineering GraphQL APIs using Java and integrated with SQL databases, supporting peak traffic of 800+ concurrent requests .
- Led verification of AWS services APIs, Lambda, ETL pipelines, RDS during migration, ensuring zero data loss and system reliability.

Projects

Malignant and Benign Breast Cancer Prediction using Machine Learning
- Built a breast cancer prediction model using Python sklearn, applying feature selection and data preprocessing techniques.
- Benchmarked multiple ML classifiers, achieving 99.6% prediction accuracy for early-stage cancer detection.

Security Modeling for Ouroboros Protocol Attacks on Blockchain Systems
- Developed security models via Python simulations to detect blockchain vulnerabilities across proof-of-stake protocols.
- Improved protocol confirmation times by 40% while maintaining cryptographic security thresholds.
- **Published in:** Springer Link

Professional Affiliations

- Volunteer and Member of AnitaB.org.
- Vice President at NextTech Lab ,Research Group.