

SAI ANANTHULA

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PROFESSIONAL EXPERIENCE

Senior Software Engineer (Cloud and Cyber security products)

January 2024 – Present

International Business Machines (IBM)

Austin, TX

- Upgraded Maas360vpn from 2.5.6 to 2.6.10, enhancing security for clients like **NASA and Pfizer**, and **optimized tunnel speed by 20%** on Android and iOS by adjusting MTU parameters.
- Implemented Push Notification system using AWS IoT, Kafka, and Java Spring Boot, effectively updating online status on the AWS IoT and generating certificates, resulting in a **30% improvement** in device verification efficiency.
- Adopted Shared Subscription, reducing **status updates load by 50%**, optimizing performance and scalability.
- Owned OCP dev and QA environments**, overseeing all bug fixes, upgrades, and enhancements, **improving system reliability by 40%** for India and US teams.

Software Engineer

January 2023 – December 2023

Global Payments Inc

Columbus, GA

- Spearheaded the development of enterprise-level applications using **Java and Spring Boot**, resulting in a 50% increase in system efficiency. Successfully implemented RESTful web services, improving **data processing speed by 30%**.
- Engineered a highly efficient, low latency client transaction pipeline system utilizing **Airflow, Kubernetes, Kafka**, and **Docker**; achieved **60% increase** in batch-processing efficiency, leading to better productivity and faster transactions.
- Developed POJOs and DAOs for 80+ database entities using Spring JDBC and MyBatis, optimizing backend connectivity and performance within a Controller-Service layered architecture.
- Implemented CI/CD pipelines using Jenkins, which **accelerated deployment cycles by 40%** and improved code integration efficiency. Facilitated the deployment of applications on AWS, achieving a **20% less operational costs and a 30% increase in deployment speed**.
- Utilized AWS technologies (EC2, S3, Lambda) to **enhance system resilience by 50%** and reduce operational costs by 30%. Achieved a 40% faster deployment speed, showcasing proficiency in cloud-based solutions.

Graduate Software Engineer (Teaching + Research)

August 2021 – May 2023

Georgia State University

Atlanta, GA

- Conducted experiments to enhance scalable automobile safety using object detection and IoT sensors, resulting in a **30%** reduction in overall system power using **Python, JavaScript, SQL, and Java**.
- Innovated a collision detection algorithm that performed **80%** more adeptly than current models and published an IEEE paper on visual light communication, generating 1.6 million in revenue for M.O.R.S.E studio development.
- Developed a Python script to automate assignment management, reducing evaluation time by **95%** using **REST API**.

Software Engineer Intern

June 2022 – August 2022

Global Payments Inc

Alpharetta, GA

- Developed and optimized the Correspondence API leveraging Java and Spring framework, resulting in **40%** reduction in account lookup time for client users and improved overall system response, following **Agile Scrum** development sprints.
- Engineered **REST APIs** by **Spring Boot** and **Java features Collections Framework, Exception Handling, I/O System, Multi-Threading, and JDBC**, resulting in **60%** system efficiency and integration with external services.
- Constructed Spring components such as Controller, Validator, Resource Mapping using annotations to handle requests, built custom view templates, and devised **Unit and Integration tests** leveraging **JUnit and Mockito**.

EDUCATION

Master of Science, Computer Science, Georgia State University, GPA: 3.9

August 2021 – May 2023

Bachelor of Science, Computer Science, GITAM University, GPA: 3.9

June 2017 – May 2021

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, SQL, CSS, HTML5, C++.

Databases: Oracle, PostgreSQL, Redis, MySQL, MongoDB.

Development Frameworks: SpringBoot, REST API, React.js, Airflow, Flutter, GraphQL, Mockito.

DevOps and Developer Tools: AWS, Lambda, Kafka, Spark, Docker, Postman, Soap UI, Eclipse, GCP, Git, Maven, Gradle, IntelliJ, Linux, Jenkins, JSON, XML, Tableau, Visual Studio, VS Code, YAML.

Software Development Practices: Agile, Algorithms, CI/CD, Data structures, design patterns, JUnits, Microservices, Scrum, Shell scripting, Software Development Life Cycle (SDLC), Sonar, Test-driven development, Code review, Debugging, Design, Monitoring, Product engineering, Testing.

PROJECTS

GSU ThingsBoard | *Python, Flutter, Raspberry Pi, PostgreSQL, Kafka, Rest API*

- Devised a cross-platform mobile and web application to visualize, control, and communicate between all IoT devices across the GSU Network which assisted in collecting radon gas data from IoT devices **70%** more dexterously.

Multi-Story Parking lot | *DEVS Java, Gradle, Git, design patterns*

- Pioneered a multi-story parking simulation and analyzed more than 20 scenarios, suggesting best practices to organize traffic and **reduce wait times by 40%** and maximized organizing efficiency by **60%**.
- Created a queuing algorithm using Java, Object-Oriented Programming and Abstract Factory design pattern.

Database Hits Optimizer | *Python, MongoDB, Redis, SQL, NoSql*

- Designed an algorithm combining Redis cache with MongoDB and PostgreSQL, reducing database hits by 60%.
- Facilitated querying on SQL and NoSQL, populated with the Twitter data set, improving turnaround time by 80%.