SHWETHA BHANDARY

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Skills

- Python | Java | Spring | C/C++ | PHP | Node.js | JavaScript | React | Redux | Rest API
- SQL | MongoDB | PostgreSQL | Oracle DB | MongoDB | MariaDB
- AWS | Azure | CI/CD | Git | Docker | Jira | Junit | SonarQube | Unit Testing | OOPs | Docker | Shell Scripting | Linux/Unix | Bash
- FullStack | Frontend | Microservices | Distributed Systems | Operating Systems | Backend

Experience

Software Development Engineer — **NCode Solutions** — **04/2022 - 08/2022**

- Established a Python-based data processing pipeline that extracted and transformed large datasets for business intelligence purposes by trimming file processing time by 35%, enhancing user experience
- Developed a React.js web application for visualizing the data and Implemented a NoSQL database (MongoDB)
- Employed event-driven messaging via Kafka for scalable, asynchronous communication between microservices

Software Engineer — **Infosys (Cathay Pacific Airlines)** — **11/2020 - 04/2022**

- Developed 20+ RESTful API microservices securing with OAuth2.0 and AWS Cognito for RBAC controls, empowering users with web applications for rule engine management, utilizing Java Spring MVC, React in Agile sprints, leading full-stack solutions
- Played a pivotal role in re-architecting the HR Portal system by identifying and consolidating components with similar functionalities, slashing cloud resource usage by 60%, and annual cost savings
- Worked on migration of Oracle database to a high-performance PostgreSQL alternative to enhance query execution speed
- Employed caching strategies to optimize storage and usage of read-intensive JSON-based business rules from NoSQL DB, leveraging Redis cache; which resulted in a 20% reduction in processing time
- Implemented 50+ unit and integration test cases with JUnit and Mockito, increasing code coverage from 55% to 95%, alongside conducting performance tests using Apache JMeter ensuring system stability, boosting service efficiency by 15%
- Containerized the project using Docker and deployed it using CI/CD pipelines in the AWS environment
- Recognized with Insta Award for Outstanding Performance among a team of 53

Web Developer — **ANT** — **02/2020 - 10/2020**

- Developed a dynamic travel agency website single-handedly, incorporating HTML, CSS, JavaScript, and React for amplified interactivity, with stripe payment gateway integration, and established a secure and scalable backend using Node.js on AWS EC2, optimizing database management through Amazon RDS
- Implemented effective SEO strategies, monitored website traffic, and orchestrated large-scale deployment with AWS Auto Scaling for dynamic resource management

Education

Master of Science (MS) — **San Jose State University** — **08/2022 - 04/2024**
Major: Computer Software Engineering — San Jose, CA, USA — **GPA:** 3.7

Bachelor of Engineering (BS) — **Visvesvaraya Technological University** — **08/2016 - 07/2022**
Major: Computer Science and Engineering — Karnataka, India — **GPA:** 3.7

Scholarships: SAP Lab Student Grantee, T Thomas Scholarship by Unilever, Grace Hopper Student Scholarship

Projects

IntelliTool- Your AI Companion (Python, React, Node.js): Built an AI-enabled student companion tool with a focus on highlighting essential points and generating automated summarization and Q&A in online lectures in file system format, complemented by a platform for administering frequent mock tests, class Scoreboard, etc. deployed on AWS.

DroneVerse (AWS, React, Node.js, Python, MySQL, Figma, MongoDB): Developed a drone Application at Treehacks Stanford, to empower small-scale farmers with real-time crop monitoring; furthered the project for large-scale implementation, optimizing operational workflow by 30% through AWS Lambda functions.

Real-Time Object Detection and Tracking System (YOLOv3, TensorFlow, OpenCV, Proxmox, CUDA): Developed a system for real-time object detection and tracking, by implementing GPU passthrough for enhanced performance, integrated a live camera feed, and optimized model parameters. Created a user-friendly interface and conducted extensive testing to ensure robustness and accuracy.

Hypervisor Prototype (C++, Linux): Focused on replicating a virtualization layer that enables the management and execution of multiple virtual machines (VMs) on a single physical host system including interrupt handling, context-switching, VM snapshot functionality, and network-based VM migration