Srivardhan Vura

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EDUCATION

North Carolina State University, Raleigh, NC — May 2025
Master of Science in Computer Science — **4.0/4.0**
Coursework: Design and Analysis Algorithms, Cloud Computing, Database Management Systems, Computer and Network Security, Software Engineering, Computer Networks, Neural Networks and Deep Learning, Automated Learning and Data Analysis

Manipal Institute of Technology, Manipal, India — June 2022
Bachelor of Technology in Information Technology — **8.73/10**
Coursework: Operating Systems, Data Structures and Algorithms, Distributed Systems, Cyber security, Object Oriented Programming, Internet of Things, Big Data

WORK EXPERIENCE

Intern | **Loyalty Juggernaut** | Frisco, TX — Oct 2024 – Present

- **Enhanced system reliability** by creating a centralized logging and alerting mechanism using AWS CloudWatch and SNS, **reducing mean time to resolution (MTTR) by 50%** and enabling rapid incident response.
- **Developed an automated end-to-end testing pipeline** leveraging GitHub Actions, **cutting manual testing efforts by 60%** and ensuring each pull request triggered container builds, integration tests, and production simulations.

Research Assistant | **NC State University** | Raleigh, NC — Feb 2024 – June 2024

- Developed and deployed a full-stack application using **Java Spring Boot** on AWS ECS. Managed APIs with OpenAPI/Swagger and AWS API Gateway utilized **AWS Aurora RDS** for scalable database solutions and implemented an automated CI/CD pipeline using **GitHub Actions** to optimize development, testing, and deployment workflows.
- Integrated **Application Performance Monitoring** (APM) with the APIs which helped pinpoint performance bottlenecks, leading to a **20% reduction in API latency**.

Product Engineer | Loyalty Juggernaut | Hyderabad, India — Aug 2022 - June 2023

- **Architected a microservices-based platform** using Java Spring Boot and Docker, employing a domain-driven design approach to improve modularity and simplify feature releases.
- Implemented **RESTful APIs** with built-in rate limiting and request tracing using AWS API Gateway and CloudWatch, **improving system throughput by 25%** and proactively identifying performance bottlenecks.
- Implemented a **distributed microservice** in Spring Boot with Kafka for asynchronous event processing and Redis caching, scaling to handle **10,000+ requests per second** at **<200 ms** average latency.
- **Optimized database interactions** by introducing connection pooling and query caching strategies on PostgreSQL, **reducing average response times by 40%** under peak traffic.

Software Engineer Intern | Tejas Networks | Bangalore, India — Jan 2022 - June 2022

- Developed a **machine learning model** designed to significantly reduce false positives in network alarms triggered by discrepancies, enhancing the accuracy of anomaly detection and **minimizing unnecessary alerts by 35%**.
- Developed an **OCR** application to extract key information from legacy configuration files using semantic segmentation, bounding box detection, and Google's Tesseract, enhancing automation in network monitoring and troubleshooting.

PROJECTS

Secure Chat Application | Python, Django, ReactJS, Cryptography

- Developed a secure, end-to-end encrypted chat application for two-person communication using Django for the backend, ReactJS for the frontend and public key encryption for data confidentiality and integrity.

Load Balancer as a Service | C++, Docker, Boost.Asio

- Designed and implemented a load balancer in C++ that supports three different algorithms: Round Robin, Least Connections, and IP Hashing and integrated with multi-threading and asynchronous programming techniques to handle high concurrency.

CERTIFICATIONS & SKILLS

Certifications: AWS Certified Developer- Associate
Languages: Python, Java**, SQL,** C++
Web & Microservices: RESTful APIs, ReactJS, Node.js, Java Spring Boot
Databases & Dev Tools: PostgreSQL, **MySQL**, MongoDB, Docker, Git, CI/CD (GitHub Actions)
Cloud & Distributed Systems: AWS, GCP, Kafka, Redis
Big Data & Scripting: Hadoop, PySpark, Apache Airflow