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

Data Engineer Intern | Loyalty Juggernaut | Frisco, TX

Oct 2024 – Present

- Refactored existing Spark jobs to utilize bucketing and broadcast joins, achieving a 35% decrease in data shuffling and improving overall query performance in high-throughput analytics pipelines.
- **Developed a Query Executor framework** allowing the BI team to schedule, update, and monitor custom Redshift queries independently—streamlining data refresh cycles, reducing DevOps overhead, and accelerating data-driven insights.

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 with 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**.

Data Engineer | Loyalty Juggernaut | Hyderabad, India

Aug 2022 – June 2023

- Designed and implemented a pipeline to migrate over 300 million records from AWS DynamoDB to PostgreSQL in under 2 hours ensuring 99.9% reliability utilizing Apache Airflow and PySpark, enhancing data migration efficiency and reliability.
- **Developed a robust data export framework** enabling scheduled and on-demand offloading of query results from RDS/Redshift to multiple external destinations (S3, SFTP, Azure Blob). Leveraged Airflow for orchestration, DynamoDB for configuration management, and AWS Batch for scalable data processing—ensuring efficient, reliable data delivery.
- Addressed the inefficiency of static EMR cluster sizes by leading the initiative to deploy an **automated EMR cluster resizing feature**, resulting in substantial **cost reductions of up to 30%** on AWS EMR expenditures.
- Containerized ETL workflows using Docker, ensuring consistent environments for development and testing, and reducing integration failures by 25% through streamlined deployment across staging and production.

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 through semantic segmentation, bounding box detection, and Google's Tesseract, enhancing automation in network monitoring and troubleshooting.

PROJECTS

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.

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.

CERTIFICATIONS & SKILLS

Certifications: AWS Certified Developer- Associate

Languages: Python, Java, SQL, C++

Frameworks/Libraries: PySpark, Hadoop, Apache Airflow,

Databases & Developer Tools: Postgres, MySQL, Redshift, MongoDB, Firebase Database, CI/CD, Docker, GIT, Postman

Cloud Technologies: AWS, GCP