

# 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, 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, Computer Networks, Cyber security, Object Oriented Programming, Big Data

## WORK EXPERIENCE

**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**.

**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 using **Apache Airflow and PySpark**, significantly enhancing data migration efficiency and reliability.
- 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.
- Developed **ETL pipelines** around a data lake for seamless data transfer to external systems using **Flask** for APIs, Airflow for orchestration, and **AWS Batch** for running Python scripts, improving data integration and accessibility.
- Designed a **Query Executor framework** for cross-team usage, emphasizing **BI and AI applications** enabling controlled Redshift write operations with built-in incremental logic for efficient database writes.

**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.

**Shipping Application** | Java, XML, Google Maps, Firebase

- Built a courier shipping mobile application featuring Firebase for secure user authentication and Google Maps integration for precise nationwide delivery tracking.

## CERTIFICATIONS & SKILLS

**Certifications:** AWS Certified Developer- Associate

**Languages:** Python, Java, SQL, C++

**Web Technologies:** HTML, CSS, JavaScript, NodeJS, ReactJS

**Frameworks/Libraries:** PySpark, Hadoop, Apache Airflow, Hibernate, Android, OpenCV

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

**Cloud Technologies:** AWS, GCP