SOMU GEETHA SRAVYA

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EDUCATION

UNIVERSITY OF FLORIDA

Master of Science in Computer Science

Gainesville, Florida August 2025-August 2027

Courses: Analysis of Algorithms, Advanced Data Structures, Machine Learning

NITTE MEENAKSHI INSTITUTE OF TECHNOLOGY

Bachelor of Technology in Computer Science and Engineering | GPA: 3.8 / 4.0

Courses: Database Management Systems, Object Oriented Programming, Problem Solving

Bangalore, India August 2020 - May 2024

WORK EXPERIENCE

HSBC Technology India, Hyderabad, India | Software Engineer

July 2024 - Present

Project 1: Technology Resilience Maturity Framework

- Developed an automation tool using Java and Spring to assess overall scores for servicing and aggregation streams across cross-functional team components, covering 45+ levels.
- Implemented statistical log analysis and memory functionality optimization using Python and various libraries for automated charting and management verification. Resolved 85+ software issues, focusing on feature enhancements and performance optimization for HSBC website applications.
- Modernized CI/CD infrastructure using AWS and GitHub Actions, reducing deployment time by 16%. Led log analysis and real-time error monitoring using Grafana and Kibana, reducing error rates by 9% across all components.

Project 2: MI Retail Tool Automation Project

- Developed MI Automation Tool from scratch using Python (Django) for backend and ReactJS for frontend. Automated creation of model sheets and calculation of profit and loss metrics for HSBC's retail sector.
- Improved data accuracy, reducing manual intervention and errors by 35% in financial reporting and optimized user experience by creating an intuitive and accessible interface tailored for financial analysis.

Project 3: UKCCM Customer Duty Document Processing Service

- Processed and visualized client-generated XML data using OTX (OpenText Exstream) for text processing and content automation. Utilized DB2 framework for efficient data storage with Java for API calls, requests and data processing development.
- Developed Unix scripts for automation and performed sanity testing to ensure stability and functionality of the code after each development cycle.

CSG System Internation, Bengaluru, India | Software Development Engineer Intern

January 2024 - July 2024

- Performed ETL operations on JSON data in Golang for signaling in the UsageAggregation Microservice and developed features using AWS Lambda and Amazon SNS services.
- Managed AWS and Azure cloud infrastructure, monitoring and analyzing errors with Kibana, Grafana, and AWS Cloud Watch, and automated processes using Terraform.
- Conducted release cuts and deployed microservices efficiently through CI/CD pipelines, ensuring seamless version control and deployment.

TECHNICAL SKILLS

Languages: Java, C++, Python, Golang, C#, Unix

Frameworks/ Tools: Spring, Spring Boot, ReactJS, Amazon Web Services (AWS), Git, Azure, Kibana, Grafana, OTX(OpenText Exstream)

Databases: MySQL, MongoDB, DynamoDB, JDBC, IBM DB2

PROJECTS

Hospital Management System – HMS | Github | Java, JDBC, MySQL, Spring, HTML, CSS

Feb 2024 - Mar 2024

• Runners at NMIT CreativeHacks Track from 45+ teams for HMS, an AI-powered platform that streamlines hospital administration by optimizing scheduling, appointment management, and patient care, with distinct functionalities for admins, doctors, and receptionists to enhance efficiency and operational workflow.

• Developed a CNN-powered virtual keyboard with 95% accuracy using OpenCV and NumPy, enabling real-time hand gesture recognition via webcam. The system features 26 letters, control buttons, and a text display, integrating mouse events for seamless interaction while optimizing performance with FPS computation.

Detection of Alzheimer's disease and Brain Tumor | Github | Python, Machine Learning, Jupyter

Sept 2023 - Apr 2024

• Developed and implemented a Convolutional Neural Network (CNN) model for early Alzheimer's disease prediction, achieving 92% accuracy, while also integrating brain tumour detection across categories to enhance diagnostic capabilities.

PUBLICATIONS

- IEEE "Housing Market Intelligence: Data Science for Rental Price Forecasting" | Link
- IEEE "Deep Learning Approaches to Image-Based Species Identification" | Link