Sivasai Atchyut Akella

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EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science

Master of Science in Computer Science — Expected Jan 2026

Vellore Institute of Technology, Amaravati

Bachelor of Technology in Computer Science — July 2024

Cumulative GPA: 3.55/4.00

Relevant Coursework: Machine Learning,Introduction to Artificial Intelligence, Problem Solving Using Java

TECHNICAL SKILLS

Programming Languages: Proficient in Python, Java; Experienced in C, JavaScript

Cloud & Automation: Google Cloud Platform, Automation tools

Web Development: Basic React, HTML, CSS, PHP, Webflow

Databases: SQL, MongoDB, DBMS

Data Analysis & BI Tools: Anaconda, Pyspark (project experience), Jupyter, MATLAB, Microsoft Power BI, Tableau, Deep Learning

Other Tools and Technologies: Microsoft Office Suite

Certifications: Certified in Artificial Intelligence (VIT Bengaluru)

RESEARCH PROJECT

Automation AI-Based System for Real-Time Laterality Detection | Philips, Bangalore — July 2023

● Reported directly to Airsang Urmila, Associate Research Engineer,Conducted a knowledge task (KT) pipeline, combining images into binary format (0's and 1's) for coding and decoding purposes, specifically identifying the spine location (right or left side) within fetal images

● Collaborated with JMJ Hospital for direct scanning and utilized Python programming to assess fetal growth and development

● Utilized Python programming skills, including image processing and data visualization with OpenCV, to attend bi-weekly meetings for project management and visualization. Applied techniques such as image thresholding, contour detection, and edge detection through OpenCV2 to monitor and analyze spine orientation within a set of scanned images

● Published a patent on processing ultrasound image data in Philips Intellectual Property and demonstrated the application of advanced technologies to address relevant healthcare challenges

INTERNSHIP EXPERIENCE

Philips Innovation Campus, Research and Development Intern | Bengaluru, Karnataka — February 2023 - July 2023

● Developed an end-to-end pipeline by incorporating relevant concepts to address the laterality of fetus detection

● Detected laterality using a set of image frames from JMJ Hospital

● Utilized OpenCV2 detection to determine the spine's position and concluded whether the fetal heart is on the left or right side

● Addressed challenges by discussing with team members, holding regular meetings with the supervisor, and understanding concept-oriented approaches to make informed decisions and progress effectively

● Reached an accuracy of approximately 80%, enhanced processing capabilities, and overall system performance

Get Default, Automation Developer | Remote, India — August 2023 - November 2023

● Achieved a 30% improvement in website content management efficiency by implementing Webflow integration

● Optimized job post promotions, resulting in a 20% increase in candidate selection efficiency

● Streamlined data transfer process, achieving a 15% improvement in efficiency

● Employing the tech stack consisting of Zoho API and the gspread library

PROJECT EXPERIENCE

SNN DBSCAN Based Clustering, Capstone Project — May 2024 - June 2024

● Implemented and optimized DBSCAN and SNN algorithms for big data clustering, ensuring high performance with Silhouette, Davies-Bouldin, and Calinski-Harabasz Scores

● Set up and configured Apache Kafka for real-time data streaming and analysis, utilizing Confluent Kafka for enhanced capabilities

● Created live graphs with Dash and real-time data visualizations using Apache Spark, integrated with Flask and Power BI for interactive dashboards and real-time insights

Real-Time Pollution Analysis, Capstone Project — October 2023 - December 2023

● Implemented and optimized DBSCAN and SNN algorithms for big data clustering, ensuring high performance with Silhouette, Davies-Bouldin, and Calinski-Harabasz Scores

● Developed and evaluated regression and classification models, including Multi Linear Regression (76.55% accuracy), Logistic Regression (72.01% accuracy)

● Conducted EDA, handled data preprocessing, and analyzed trends in pollution using two datasets (city_day and city_database)

ACHIEVEMENTS AND AWARDS

● Appointed as the Communication Chair at the Microsoft Student Chapter

● Secured 13th Rank in Design X event by CSI (Computer Society of India) at VIT AP CHAPTER