Surya Reddy Nallamilli

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Education

University of Illinois - Chicago **August 2023 – May 2025**
Master of Science in Computer Science *Chicago, IL*

Amrita Vishwa Vidyapeetham **July 2017 – June 2021**
Bachelor of Technology in Electronics and Communication Engineering *Coimbatore, India*

Experience

University of Illinois, Chicago **May 2024 – Present**
Full Stack Developer *Chicago, USA*

- Collaborated to develop the INTUITION platform, improving clinical care and research for over 200 epilepsy and brain tumor patients across five medical centers.
- Developed key tools, including an EEG viewer and deidentification system, enabling the secure processing of over 800 EEG recordings and accelerating analysis by 40%.
- Created a DICOM viewer and deidentifier, streamlining the management of over 10,000 imaging files, , improving efficiency by 25% while ensuring compliance with patient privacy regulations.
- Utilized Django, Python, and PostgreSQL to streamline the collection and analysis of multimodal data. reducing data processing time by 30%
- Implemented responsive front-end components using HTML, CSS, and JavaScript, improving the user experience for over 100 clinicians and researchers across five academic medical centers.

Cognizant Technology Solutions **August 2021 – June 2023**
SAP ABAP Developer *Hyderabad, India*

- Designed and implemented a Dynamic Integration Framework, reducing manual SAP ABAP code changes by 90% when interfacing with non - SAP systems.
- Created Python scripts for data cleansing and pre-processing, resulting in a 60% increase in overall operational efficiency.
- Innovated an automated data reporting mechanism, transforming a 2-hour manual task into a streamlined process.
- Implemented an automated monitoring program to track system and application errors, eliminating manual interventions; ensured real-time error reporting and reduced system downtime by 40%, enhancing overall operational efficiency.
- Analyzed production logs to identify and resolve issues, leading to a notable 15% increase in delivery efficiency.
- implemented SQL functions and triggers to refine data preparation processes for business reporting, thus enhancing reporting efficiency.

Projects

Predictive Analytics in Road Safety

- Analyzed 7.7M US road accident records using Machine Learning algorithms (Random Forest, Gradient Boosting, SVM, MLP) to predict severity with 93.45% accuracy via GridSearch-optimized Gradient Boosting
- Employed Folium and Matplotlib for insightful data visualizations, to analyze accident distribution and trends. Innovatively addressed missing values using haversine formula for GPS-based imputation.

Dynamic Weather Dashboard

- Developed a dynamic and responsive weather application using React for the front end and NodeJS for dynamic data handling, ensuring an engaging UI that displays real-time weather data fetched from the OpenWeatherMap API.
- Successfully integrated the OpenWeatherMap API to dynamically retrieve and display current weather conditions, including temperature, humidity, and wind speed, providing users with up-to-date and accurate weather information.

Technical Skills

Languages and Framework: Python, Java, C, HTML, CSS, JavaScript, ReactJS, NodeJS, Django, SAP ABAP
Tools and Libraries: Tableau, Git, Pandas, PySpark, TensorFlow, Pytorch, Numpy, SAP S/4 HANA
Databases: MySQL, PostgreSQL, MongoDB, Oracle

Certifications and Achievements

- Successfully completed the Microsoft Azure Fundamentals certification (AZ-900), demonstrating a foundational understanding of cloud services, cloud models, and Azure services such as computing, networking, storage, and security.
- Authored an IEEE research paper, titled 'Cooperative NOMA and Energy Harvesting using MISO in 5G Networks', which presents innovative approaches to enhance network efficiency and energy sustainability in 5G communications.