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EDUCATION

University of Cincinnati, Master of Engineering in Computer Science **CGPA**: 3.62 Aug 2023 – May 2024
Coursework: Cloud Computing, Information Retrieval, Intro to Machine Learning, Data Encoding, Cyber Security

VNR Vignana Jyothi Institute of Technology, BTech in Electronics and Communication Engineering **CGPA**: 3.64 Aug 2017 – May 2021
Coursework: Artificial Neural Networks and Fuzzy Logic, Data Structures, DBMS, Web Development

SKILLS

- ***Programming***: Python, SQL, C++, C, Java
- ***Tools & Frameworks:*** TensorFlow, Jupyter Notebook, Visual Studio Code, GitHub, Tableau, PowerBI, MS Office, HDFS
- ***Databases & Cloud Technologies:*** MySQL, MongoDB, Oracle, AZURE (*Machine Learning, Blob, Data Factory*), AWS (S3, Lambda. EC2)

EXPERIENCE

Tata Consultancy Services Ltd Oct 2021 – Aug 2023

Data Scientist *[Python, Machine Learning, Pandas, Matplotlib, Seaborn, Scikit-Learn, Statsmodels, Plotly, TensorFlow, OpenCV]*

- Developed Python script employing advanced Machine Learning and Time-Series Analysis techniques to generate comprehensive dashboard plots from gearbox sensor data with a Sampling rate of **3000**.
- Boosted sensor data quality and unlocked richer insights by 30% with data cleaning, advanced analysis, and statistical calculations.
- Created a predictive forecasting model leveraging the Auto_Arima, TimeGPT, and Temporal Fusion Transformers enabling **78%** accurate prediction of future plant stoppages based on historical data patterns and trends.
- Achieved >85% accuracy in particle size analysis for cone crushers using a novel image processing system with a modified DexiNed network. This system leverages edge detection, contour refinement, and mass estimation techniques.

Cognizant Mar 2021 – July 2021

Programmer Analyst Intern *[Python, Apache Spark, SQL, Power BI, Hadoop, Hive, HDFS]*

- Created and executed ETL processes with SSIS, enhanced by Apache Hive for optimized data querying and storage management on Hadoop clusters. Developed SQL transactional queries for stored procedures, enhancing data reliability.
- Combined Apache Spark with Hadoop to manage large-scale data processing more efficiently. Produced actionable, client-facing reports using SSRS and Power BI, meeting intricate business needs and aiding stakeholder decision-making.
- Built SSIS packages from the ground up, utilizing HDFS and implementing SFTP workflows and Dataflows for various clients.

PROJECTS

Fake News Classification Using LSTM *[Python, TensorFlow, Keras, NLTK, Scikit-learn, Seaborn, Pandas, NumPy, LSTM]*

- Executed comprehensive data cleaning and preprocessing, including stop-word removal, lemmatization, and n-gram analysis, improving text data quality by **30%.**
- Implemented an LSTM model with one-hot encoding and pre-padding, achieving **92%** classification accuracy in detecting fake news.
- Enhanced model interpretability with WordCloud visualization, facilitating better insights into common terms and phrases associated with fake news.

Detection Of Alzheimer's Disease *[Flask, Random Forest, Gradient Boosting, Logistic Regression, Decision Tree]*

- Performed data preprocessing, including addressing missing values, label encoding, and standardization, resulting in a **15%** improvement in model accuracy.
- Applied various machine learning models (Random Forest, Gradient Boosting, Adaptive Boosting, Logistic Regression, Decision Tree), achieving a precision of **92%** and recall of **89%** through RandomizedSearchCV hyperparameter tuning.
- Crafted and integrated an interactive website using HTML, CSS, and Bootstrap with the machine learning model via the Flask framework, enhancing user accessibility and engagement.

Automatic Number Plate Detection on AZURE *[TensorFlow, LLM, YOLOv5, PyTesseract, OpenCV, Blob Storage, Functions]*

- Deployed the YOLOv5 model on Azure Virtual Machines with GPU instances, accelerating inference time by **30%** and improving overall system responsiveness. Utilized Blob Storage for scalable data storage and retrieval, reducing data access latency by **20%.**
- Employed Azure Functions for automated image preprocessing and Azure Machine Learning for model training, increasing workflow efficiency by **25%** and achieving **90%** text extraction accuracy from detected Regions of Interest (ROI).

CERTIFICATIONS

- PCAP: Certified Associate in Python Programming Certification - Course offered by Python Institute.
- Machine Learning Certificate - Course authorized by Stanford University.
- Tableau Desktop Certified Associate - Course offered by Edureka.
- Microsoft Certified: Azure Data Fundamentals Certification (DP-900) - Course offered by Microsoft.
- Microsoft Certified: Azure Fundamentals Certification (AZ-900) - Course offered by Microsoft.

ACHIEVEMENTS

- **Received** - Graduate Incentive Award from the University of Cincinnati, valued at **$9,226**, in recognition of academic excellence. *Aug 2023*
- **Achieved** - Elite and Silver Medals in Programming, Data Structures, and Algorithms Using Python through NPTEL Exam. *Sep 2019*