Vijay Muni

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Education

New Jersey Institute of Technology

CGPA:3.2/4.0

Newark, NJ

Master of Science in Computer Science and Technology

Relevant Courses: Database Systems, Machine Learning, Deep Learning, Artificial Intelligence, Internet and High Layer protocols, Data Structures and Algorithms.

Nitte Meenakshi Institute of Technology.

CGPA:7.5/10.0

Bachelor of Technology in Computer Science and Engineering

Bangalore, India

Relevant Courses: Robotics, Distributed Systems, Artificial Intelligence, Data Science, Computer Networks, Compiler Design, Object Oriented, Software Engineering Technical Skills

Languages & frameworks: Python, R, SQL, NoSQL, Java, TensorFlow, Keras, PyTorch, Sklearn

Databases: PostgreSQL, Oracle SQL, MySQL, MongoDB, NoSQL, Data warehouse

Data Engineering Tools: ETL, Apache Spark.

Cloud Technologies, Cloud Native, and DevOps: Azure data bricks, AWS(EC2, S3, Lambda), AWS RedShift, Docker, Kubernetes.

Software Tools: GIT, GitHub, Jupiter Notebook, VSCode

Operating System: Windows, Linux, MacOS

Experience

Data Engineer Dot IT Sol

Python, ETL, ML/DL Models, Data warehouse, TensorFlow

Mar2024 - Present

- Designed and developed scalable ETL pipelines to process and transform large datasets, ensuring high data integrity and performance optimization.
- Developed predictive models leveraging machine learning algorithms (e.g., random forests, gradient boosting) tailored to enhance efficiency and decision-making.
- Led end-to-end ML model development projects, including requirement gathering, algorithm selection, hyperparameter tuning, and production deployment, to optimize hiring analytics.

IST Desk Attendant-NJIT

Sep2023 - Dec2023

Data Management, MS Excel, GIT, Rest Api, Linux

- Managed data workflows in the Virtual Net Touch (VNT) application by extracting, organizing, and maintaining accurate records to ensure data integrity and usability for NJIT ResLife staff.
- Performed data entry and analysis in MS Excel, using formulas like VLOOKUP and Pivot Tables to maintain and update student rosters.
- Developed and automated simple ETL process using Excel macros to transform and organize data for residence tracking, improving efficiency in record management.

Data Engineer-Intern-Spring Info Tech Pvt Ltd

Nov2021-May2022

Flask, LSTM neural networks

- Performed statistical analysis and EDA in Python to extract key features, resulting in a 30% improvement in model accuracy for image resolution tasks.
- Built and fine-tuned deep learning models, including SRGANs and LSTM neural networks, achieving a 65% accuracy rate for image resolution enhancement and reducing error rates in cryptocurrency price forecasting by 15%.

Academic Experience

Brain Tumour Detection from MRI Data using CNN | Python, Logistic Regression, CNN, Decision tree, Random Forest

- Applied transfer learning using pre-trained models (e.g., VGG16, ResNet). Addressed challenges such as class imbalance and tumour variability by implementing binary classification and evaluating model
- performance using metrics like AUC-ROC, Sensitivity, and F1-Score.
- · Implemented a Convolutional Neural Network (CNN) architecture to detect and classify brain tumors with an accuracy of 93%.

Driver Drowsiness Detector CNN, OpenCV, Keras, Tensor flow, Scikit-learn.

- Designed a driver monitoring system to detect drowsiness through eye blinking and head movements using camera data, achieving over 80% accuracy. Used logistic regression models to classify drowsiness, enhancing traffic safety.
- · pre-processed video and sensor data by implementing frame extraction, normalization, and enhancing model accuracy.
- Trained a (CNN) to classify driver activities such as hands on wheel, texting, eating, or drowsiness with an accuracy of 90%

E-commerce Web Application | Java, Rest Apis, PostgreSQL

- This e-commerce web application enables users to browse and purchase perfumes, manage accounts, and track orders, while admins handle user, perfume, and order management via a secure backend.
- Key features include user authentication, order tracking, admin panel management, and advanced search filters. Built with Spring Boot, PostgreSQL, and secured using Spring Security and BCrypt encryption.

Leadership/Certification

- · AWS Certified Data Engineer Associate, Complete SQL Bootcamp, Introduction to LLM
- As a part of Data Engineer at Dot It Solutions, I collaborated with and mentored interns, delegating smaller sub-tasks to the team while ensuring efficient task
 management and successful project execution.

Key Achievements:

- Reduced query execution time by 20% by optimizing SQL queries.
- Automated data processing workflows using Python, saving 10 hours/week.
- Deployed machine learning models on AWS EC2, achieving 95% accuracy.