Aditya Patel

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EDUCATION

NEW JERSEY INSTITUTE OF TECHNOLOGY

Newark, Ni

Master's of Science (MS) in Data Science | Cumulative GPA: 4.0/4.0

Dec 2024

Relevant Coursework: Deep Learning | Mathematical Analytics | Big Data | Machine Learning | Database | Data Mining

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY

India

Bachelor of Technology (UG) in Mechanical Engineering

Jul 2015 - Jul 2019

WORK EXPERIENCE

NEW JERSEY INSTITUTE OF TECHNOLOGY

Newark, Nj

Research assistant

May 2024

- Built Open3D-CUDA environment from source to process remote sensing and point cloud data
- Developed a machine learning model for image segmentation and 3D object detection utilizing the Open3D ML extension. This involved harnessing advanced algorithms and techniques to identify and analyze objects within the data.
- Conducted thorough data manipulation for locally obtained sensor data, ensuring compatibility and readiness for further analysis and modeling. This process involved cleaning, organizing, and preprocessing the data to extract meaningful insights.

CAPLINE SERVICES INDIA

Business Analyst

Feb 2022 – Mar 2023

- Coordinated the RCM service for USA-based clinic and hospital clients, overseeing 12 providers across 4 clients
- Guided bi-weekly comprehensive reports, detailed provider credentialing status with 12+ insurance carriers
- Executed upselling strategies to enhance service offerings when necessary, ensuring client satisfaction and value addition
- Coordinated the onboarding process for new clients, ensuring a seamless transition, and managed highly sensitive data
- Incorporated SQL for data analysis, and Excel for effective visualization which enhanced data-driven decision-making and reporting accuracy

BYJU'S (Think and Learn)

INDIA

Sr. Business Development Associate

Dec 2019 - Jul 2021

- Executed pre-sales and sales in a Business-to-Customer (B2C) direct selling model
- Conduted cold calling and conducted seminars to promote and sell the product
- Achieved a remarkable surge in weekly sales, escalating the average from \$2,400 to \$7,200 over a span of 1.5 years, with the peak reaching \$12,000
- Mentored 10+ Junior BDA in securing successful sales and ensuring client satisfaction

UNIVERSITY PROJECTS

Temperature - Forcing Climate modeling.

Mar 2024

- Completed a comprehensive project utilizing a private dataset for weather forecasting, focusing on temperature fluctuations based on historical data spanning the past 12 months, under the mentorship of CO-PI Prof. Mengjia Xu.
- Employed UNet, CNN, GNN, and diffusion models, exploring 77 different combinations of epochs and batch sizes to optimize performance, and achieved a notable accuracy of 94% despite the limited sample size.
- Implemented advanced data processing and modeling techniques to identify and predict intricate temperature fluctuation patterns

American Sign Language Interpreter

Dec 2023

- Implemented a Machine Learning project in Computer Vision dedicated to American Sign Language interpretation. Employed a CNN model with 27 classes, including 26 letters and one blank category
- Implemented resource optimization strategies to achieve an impressive 93% accuracy. The system translates Computer Vision input into audio output using Google Text-to-Speech (GTTS), demonstrating the practical application of machine learning in communication facilitation
- Streamlined data preprocessing, leveraging Remove.bg in Python for an 87% size reduction and enhanced model runtime. Ensured seamless collaboration by hosting the project on GitHub for efficient version control and collaboration

TECHNICAL SKILLS

Programming Languages: Python, SQL, R

Libraries: Pandas, NumPy, Matplotlib, SciPy, OS, SkLearn, PyTorch, TensorFlow, Keras, Seaborn

Machine Learning Algorithms: Classifier & Regressor (KNN, Random Forest, GBoost, XGBoost) Clustering (K-means, Spectral), PCA, Neural Network, Bayesian Statistics, A/B testing (T-test, Chi-sqaure, Anova), Correlation, Cosine similarity, collaborative filter, content-based filter, LSTM, Isolation forest, Gaussian Mixture model

Tools & Frameworks: AWS, Linux(Command Line Proficiency), R Studio, Hadoop, Spark, HDFS, Oozie, Power BI, Vs Code, Google Collab, Jupyter, CUDA, Conda Environments