ARCHIT DUKHANDE

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EDUCATION

Syracuse University | School of Information Studies | Syracuse, NY **August 2023 - May 2025**
Master of Science in Applied Data Science | GPA – 3.85 / 4
Relevant Coursework: Applied Machine Learning | Business Analytics | Quantitative Reasoning | Database Management | Data Analysis and Decision Making | Information Visualization | Visual Analytics Dashboard | Project Management | Cloud Management

Vidyalankar Institute of Technology | Mumbai, India **August 2019 - June 2023**
Bachelor of Engineering in Electronics and Telecommunication Engineering

TECHNICAL SKILLS

Languages: SQL, Python (Pandas, NumPy, SciPy, Matplotlib, Seaborn), R
Data Analysis & Visualization: Tableau, Power BI, Advanced MS Excel (PivotTables, Power Query, Power Pivot)
Statistical Analysis: Hypothesis Testing, Confidence Intervals, Time Series Analysis, Regression Analysis, Forecasting, ANOVA
Machine Learning & AI: Expertise in building models with TensorFlow, Keras, XGBoost, LightGBM, SVM, Random Forest, KNN
Cloud-Based Development Environments: Google Colab, GitHub Codespaces, Jupyter Notebook
Database & Software Development: Microsoft Access, Microsoft SQL Server
Productivity Software: Microsoft PowerPoint, Microsoft Word

WORK EXPERIENCE

Data Analyst | iConsult Collaborative - Syracuse University | Syracuse, NY **August 2024 - Present**

- Developed ETL pipelines in Python, automating data workflows for improved efficiency and data migration.
- Optimized SQL queries and leveraged Excel to enhance database performance.
- Developed interactive dashboards to deliver actionable insights, enhancing data-driven decision-making processes.
- Automated reporting tasks to reduce manual efforts, increasing operational efficiency and accuracy in large-scale projects.

Data Curator Intern | Syracuse University (CASE) – SIDEARM Sports | Syracuse, NY **May 2024 - August 2024**

- Streamlined data migration processes by designing workflows to ensure accurate and timely integration.
- Identified and resolved data discrepancies through detailed analysis, enhancing data quality and reliability.
- Collaborated with cross-functional teams to maintain data consistency and support seamless client onboarding.
- Conducted validation tests to ensure the integrity of data during system integration and migration.

PROJECTS

Clinical Trial Analysis and Predictive Modeling | Link

- Analyzed clinical trial datasets to evaluate phase distributions, success rates, and enrollment trends**.**
- Developed predictive models (XGBoost, Random Forest) with **86%** accuracy and **87%** AUC to classify trial outcomes.
- Validated data integrity and created visual analytics to provide actionable insights for stakeholders.

Dynamic Flight Fare Prediction and Customer Insights | Link

- Built machine learning models (XGBoost, Random Forest, Gradient Boosting) to analyze and predict dynamic flight pricing trends, achieving a regression R^2 of **95.5%** and classification AUC of **98.8%.**
- Conducted extensive data preprocessing, EDA, and feature engineering to uncover pricing patterns and customer behaviors.
- Visualized fare trends using Python (matplotlib, seaborn) to support strategic pricing and engagement strategies.

Cyber Attack Prediction and Defense Optimization with Machine Learning | Link

- Designed XGBoost models in Python to analyze cybersecurity incidents, achieving **87%** accuracy and an AUC of **92%**.
- Resolved data challenges by handling missing values, balancing classes, and encoding categorical data for stability.
- Built a Power BI dashboard to monitor cybersecurity metrics and support real-time decision-making.

Energy Demand Forecasting and Sustainable Solutions | Link

- Analyzed **4.2M** records from energy, weather, and housing data to identify key drivers of peak demand.
- Implemented machine learning models (Linear Regression, SVM, XGBoost) with R^2 of **85.7%** for accurate predictions.
- Developed a Shiny app with interactive maps to visualize energy consumption and recommend sustainable solutions.