MANGESH PATIL
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## EDUCATION

Pace University, Seidenberg School of Computer Science — NEW YORK, NY
Master of Science in Data Science | GPA: 3.70 — May 2024

University of Mumbai — MUMBAI, INDIA
Bachelor of Engineering in Electronics Engineering | GPA: 3.00 — May 2022

## RELEVANT COURSEWORK

Data Mining | Machine Learning |Intro to Data Science | Mathematical Foundation of Analytics | Python for Data Science | Database Management and SQL | Scalable Database | Deep Learning | Algorithms | Analytical Capstone Project.

## TECHNICAL SKILLS

- Programming Languages: Python (Intermediate), SQL, R (Basic),C, C++
- Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Seaborn, Tableau, Power BI
- Database Management & Querying: MySQL, PostgreSQL, MongoDB, Microsoft SQL Server
- Statistical Analysis: Hypothesis Testing, Regression Analysis (Linear, Logistic), Time Series Analysis, ANOVA, Bayesian Methods
- ML and Deep Learning: sci-kit-learn, TensorFlow, Keras, PyTorch, XGBoost, ARIMA, KNN, CNN, ANN, NLP
- Cloud Technologies: Microsoft Azure (AI Fundamentals, Machine Learning), Amazon Web Services (AWS), (GCP)

## WORK EXPERIENCE

Maharashtra Telephone Nigam Limited Thane, India — MUMBAI, INDIA
Data Analyst Intern — June 2019-July 2020

- Engineered an RFM analysis and Scoring Model, resulting in a 5% increase in targeted marketing effectiveness.
- Spearheaded Churn Prediction analysis, leading to a 3% reduction in customer churn rate through proactive retention.
- Leveraged SQL and Python to collect, clean, and analyze large datasets, improving data-driven decision-making.
- Collaborated with the pricing team to design personalized offers based on RFM segmentation

## PROJECTS

Netflix Recommendation System(capstone) — March 2024

- Deployed Netflix recommendation system, integrating content-based, collaborative filtering, and hybrid methodologies.
- Conducted intricate content analysis, utilizing TF-IDF and word embeddings on a dataset of 10,000+ movie titles and 25M
- entries to personalize recommendations.
- Integrated collaborative filtering algorithms, achieving RMSE of 0.86 and MAE of 0.70, enhancing recommendation
- accuracy.
- Engineered hybrid recommendation system, optimizing accuracy via weighted averaging and ensemble methods for
- seamless recommendation blending.

Credit Risk Evaluation and Customer Segmentation — Feb 2024

- Developed logistic regression and random forest models for credit risk evaluation, achieving high ROC-AUC scores of
- 0.85 and 0.90, respectively.
- Conducted data preprocessing, including imputation, scaling, and one-hot encoding, to optimize model performance.
- Monitored model stability using PSI and CSI metrics, ensuring consistent and robust performance over time.
- Significantly improved credit risk prediction accuracy by 18% and boosted targeted marketing effectiveness by 22%
- through enhanced customer segmentation.

Spectra vision: unleashing CNN Mastery — December 2023

- Engineered Convolutional Neural Network (CNN) models in TensorFlow and PyTorch, enhancing image recognition
- accuracy.
- Applied Transfer Learning using InceptionV3 with the Keras Sequential model.
- Executed efficient parallel task execution to streamline CNN model training and implementation for optimal performance.
- Achieved 94% validation accuracy, demonstrating advanced image recognition performance through comprehensive
- model comparison and development.

## EXTRA-CURRICULAR

Cognizant's Artificial Intelligence Job Simulation on Forage — September 2023

- Performed an AI-focused job simulation for Cognizant's Data Science team, performing exploratory data analysis using Python and Google Colab for Gala Groceries, achieving an MAE of 0.22 (60% accuracy), and communicated findings through PowerPoint.

PwC Switzerland Digital Intelligence Job Simulation on Forage — September 2023

- Analyzed 2019 FAERS data for PwC Switzerland, identified top 10 Tramal adverse effects, developed Python models, created valuation document, and contributed to client's medical data strategy.

Bank of America Job Simulation on Forage — September 2023

- Identified an ideal acquisition target, conducted SWOT analysis and strategic assessment, constructed DCF model for valuation, completed sensitivity analysis, and created a comprehensive company profile for client decision-making.

## CERTIFICATION

- Google Data Analytics Professional Certificate.
- Microsoft Power BI Data Analytics Professional Certificate.
- Publication on ‘Sales Forecasting for Telecom Vertical Using ARIMA in R’ with an impact factor of 7.57/10 at IJERT Publication.