PRATIK MOHARE

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ACADEMIC PROFILE

Master of Science: College of Engineering and Computing, George Mason University, Fairfax, US Dec 2022
Major: Computer Science GPA:3.79

Bachelor of Engineering: Mumbai University, India May 2016
Major: Computer Engineering GPA: 4.0

TECHNICAL SKILLS

Languages: Python, R, Java, C/C++, Ruby, Lisp, HTML/CSS, JavaScript, Shell Scripting, Octave
Frameworks/API: PySpark, NumPy, Pandas, Scikit-learn, Keras, Tensorflow, OpenCV, Matplotlib, Angular, NodeJS, Django
Tools: SAP NetWeaver, SAP BusinessObjects, DataStage, Tableau, Control-M, ServiceNow, MS Office
Database: MySQL (Subqueries, Stored Procedures, Triggers, and Functions)
Operating Systems: Linux, Mac, Windows

INTERESTS

Machine Learning | Deep Learning | Computer Vision | NLP | Data Analysis

EXPERIENCE

Graduate Teaching Assistant: George Mason University, Fairfax, US Jan 2022-Present
Conducting labs and assisting in instruction to 100+ students in 2 courses: Data Communications & Network Principles and Operating Systems Fundamentals.

Graduate Teaching Assistant: George Mason University, Fairfax, US Sept 2021-Dec 2021
Assisted in instruction for the Database Management course to 80+ students including hands-on through SQL Server 2017
Demonstrated effective communication and leadership through teaching sessions and doubt solving meetings.

Senior System Engineer: Infosys Limited, India Feb 2017-Dec 2019
• Strategized and optimized ETL workflows using DataStage and improvised processes with integrated automation scripts.
• Generated 10-12 ad hoc statistical reports monthly for client using SAP BusinessObjects, BEx-Analyzer and SQL.
• Led and managed a diverse team of 12 finance and technical individuals, identifying and utilizing the strengths of each member, while learning and adapting to new and emerging technologies.
• Identified and troubleshot issues and deployed fixes on production for maintaining compliance.

Software Development Intern: Solar Edutech, India Jun 2016-Jul 2016
Developed & maintained Employee Records Management System and Cab Booking Project with Object-oriented design & Java Database Connectivity (JDBC) to handle large number of records.

PROJECTS

H1B Exploratory Data Analysis and Status Prediction
Analyzed the H1B dataset (2010-2021 : 7 million records) from Department of Labor (DOL US) website and identified trend in the applications and predicted acceptance rate (regression ensemble model) for future merit-based system using PySpark.

Movie Recommender System
Predicted movie ratings on movielens 20M dataset using matrix factorization with Alternating Least Square (ALS) and collaborative filtering in PySpark. Used k-fold cross validation with regularization and RMSE & mean absolute percentage error evaluators.

2020 US election tweet analysis (Kaggle)
Predicted sentiment of tweets using twitter posts datasets related to Donald Trump and Joe Biden using LDA in PySpark to find topic composition and membership of data.

Ecommerce Products Matching (Shopee – Kaggle Competition)
Image Classification using SIFT, SURF, BRIEF, ORB & Text Classification using TFIDF and Word2Vec & Deep learning:
• ANN with Rectified Linear Activation (RelU**)** and Sigmoid function.
• Convolutional Neural Network CNN with pre-built models like MobileNet & Inception V3.

Credit Risk Prediction
• Developed predictive models for binary classification to determine credit risk of an individual
• Implemented SMOTE (Synthetic Minority Oversampling Technique) for handling unbalanced dataset and analyzed pearsons correlation coefficient for statistical relation in features and dimensionality reduction.

Cursor Control using Eye Movement:
• Built a Real-time eye tracking based touch-free human-computer interaction through a webcam using Java and OpenCV.
• Elicited requirements, developed project roadmap, delegated responsibilities, and generated legible documentation while leading a team of 2 other students throughout the project lifecycle.
• Designed and developed proof of concept for application in accident avoidance and drowsiness detection system in automobiles.