# PRATIK MOHARE

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#### **PROFILE SUMMARY**

- Dedicated and reliable professional with 3 years of industry experience in a fast-paced and changing environment.
- Innovative, committed, and confident individual with good work ethic.
- Patience, flexibility and affinity to work with people from diverse backgrounds and enhance team engagement.

# **ACADEMIC PROFILE**

Master of Science: Volgenau School of Engineering, George Mason University, Fairfax, US

Jan 2021-Dec 2022

Major: Computer Science GPA:3.8

**Bachelor of Engineering:** Atharva College of Engineering, Mumbai University, India Aug 2012-May 2016

Major: Computer Engineering GPA: 4.0

#### **EXPERIENCE**

Senior System Engineer: Infosys Limited, India

Feb 2017-Dec 2019

Risk Management, Northern Trust Corporation (NTRS)

- Performed Extraction, Transformation and Data Loading (ETL) using IBM DataStage and SQL.
- Generated Statistical Reports for higher management using SAP BusinessObjects (BO).
- Led and managed a diverse team of finance and technical individuals
- Identified and troubleshoot issues in a fast-paced real time banking environment

# Software Development Intern: Solar Edutech, India

Jun 2016-Jul 2016

 Developed & maintained Employee Records Management System with Object-oriented design & Java Database Connectivity (JDBC)

#### **PROJECTS**

## **Ecommerce Products Matching (Shopee – Kaggle Competition)**

- Image Classification using SIFT, SURF, BRIEF, ORB & Text Classification using TFIDF and Word2Vec
- P-Hash matching
- Image classification using 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**

- Pearson's correlation coefficient for statistical relation amongst features and association to determine features of interest
- Used SMOTE (Synthetic Minority Oversampling Technique) & Scaled features
- Used ensemble methods with bagging and boosting

# **Amazon Reviews Analysis**

- Data Cleaning- Lemmatization & Stemming, removed stop words and punctuations etc.
- Implemented Term Frequency Inverse Document Frequency (TFIDF)
- Classification using K Nearest neighbors (KNN) classifier

**Motion Detection & Tracking:** Real-time motion detection & tracking for security using OpenCV & Python. Logging intrusions with timestamp logs and video evidence

**Map Routing:** Implemented Minimum spanning (Shortest Route tracing) and relay time calculation with Kruskal's Algorithm for optimal path using Python and Folium library

**Enigma Machine Emulator:** Python implementation of the infamous Enigma Machine (having nearly 159 quintillion encoding settings); a device used by the German military to encode strategic messages during WW2. Complexity is comparable to 88-bit encryption.

#### Cursor Control using Eye Movement: Bachelors Major Project

- Built a Real-time eye tracking based touch-free human-computer interaction through a webcam using Java and OpenCV.
- Elicited requirements by creating scenarios, developed project roadmap and documentation.
- Designed and developed proof of concept for application of eye tracking in accident avoidance and drowsiness detection system in automobiles.

#### **SKILLS**

Programming Languages : Python, Java, C/C++, Ruby, Lisp, HTML/CSS, JavaScript, Django

Database : Oracle SQL, PL/SQL, MySQL

Frameworks / Tools : NumPy, Pandas, Scikit-learn, OpenCV, Matplotlib, Hadoop, Spark, MATLAB, Octave, SAP

NetWeaver, SAP BusinessObjects, DataStage, QT Creator, MS Office, Adobe Photoshop