Amit Makashir

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Education

Master of Science - Data Science | Indiana University | Bloomington, USA — May 2020

Coursework: Machine Learning, Artificial Intelligence, Deep Learning, Applied Algorithms, Distributed Computing — GPA: 3.76

Bachelor of Engineering | Savitribai Phule Pune University | Pune, India — October 2016

Work Experience

Indiana University, Bloomington

Student Data Scientist — January 2019 - Present

- Write scripts in Python and MySQL to parse, clean, analyze and standardize data from multiple datasets
- Create a relational database by combining the datasets and develop methodologies for extracting, manipulating and displaying this data by collaborating with other scientists

Big Rattle Technologies, Mumbai, India — September 2017 - July 2018

Software Developer, Client: SanKash (sankash.in)

- Developed a web based application for processing travel loans using Laravel (PHP), MySQL and JQuery
- Designed agent and customer portals enabling them to make travel itineraries, choose customized payment plans for a loan and integrated a face detection library using JavaScript
- Enabled transactions of monthly installments by evaluating and integrating payment portal
- Scheduled a task to calculate the amount due (monthly) for every customer

Intern - Software Developer — April 2017 - September 2017

- Developed APIs and Content Management System for an E-commerce mobile application using Laravel
- Enabled the admin to generate QR codes and manage users, products and orders

Technical skills

Programming languages: Python (NumPy, Pandas, scikit-learn), R, JavaScript, PHP, Matlab, Java, C++
Tools/Frameworks: TensorFlow, Apache Hadoop, Apache Storm, Tableau
Web Application: Laravel, SQL, JQuery, Bootstrap, HTML, CSS

Relevant Projects

Prediction model for U.S. elections — Fall 2018

- Predicted 375 out of 429 winners in the House and 28 out of 33 winners in the Senate elections 2018
- Extracted new features by doing an exploratory analysis and built a classifier based on Random Forest in Python
- Generated features use a ranking system that makes the model accurate at predicting future as well as past elections

Classifying the orientation of an image — Fall 2018

- Developed Random forest, KNN and Adaboost based classifiers in Python to identify orientation of an image
- Engineered new features from the training data and reduced the total number of features from 192 to 32 which also increased the testing accuracy by 2% and considerably reduced training time
- Optimal model was KNN with an accuracy of 73% on test dataset

Recognition of text in natural images (Optical Character Recognition) — Fall 2018

- Extracted text from an image - implemented letter recognition and segmentation with 97% accuracy
- Employed Hidden Markov Model (HMM) and implemented the Viterbi decoding algorithm in Python

Indiana talent and workforce alignment visualization (Indy Big Data Challenge) — September 2018

- Diagnosed issues with Indiana's talent to workforce alignment and barriers to employment by studying education, demographic, healthcare, commuting patterns and employment data
- Created visualizations in Tableau to demonstrate insights