Dwarkanath Prabhu

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SUMMARY

Data analyst and self-taught web developer with startup experience

SKILLS

- Data Science / Machine Learning: SQL, Python, R, Tableau, CPLEX, C++
- Web Development: HTML, CSS, JavaScript, Flask, Go
- Statistics: Markov Chains, Statistical Modeling, Monte Carlo Simulation, Regression, Linear Programming

WORK EXPERIENCE

Software Developer, Conference Management Services, Inc.   Oct 2019 – Present

Data Scientist *(Part-Time)***,** Texas A&M University   Jun 2019 – Oct 2019
Air Quality (Data scraping)
- Scraped historical data of air quality from PurpleAir REST API for pollution monitors using Python (requests)
- Comparing PM2.5 data from air quality sensors to CDC data and estimating risk to Asthma patients

Research Assistant, Texas A&M University   Sep 2017 – Dec 2018
Skin Cancer Detection Using Deep Learning (Computer Vision)
- Analyzed a labeled dataset of 10,000+ skin images to classify into 7 types of diseases
- Achieved validation multi-class precision of 87.5% - a 25% improvement over baseline by using:
  - ResNet50 pretrained on ImageNet in TensorFlow
  - Data Augmentation and Weighted Loss to fix class imbalance

Power Generation Capacity Planning (Conference paper - Optimization)
- Modeled and solved a bi-objective optimization problem using linear programming to minimize water utilization and cost for power generation in Texas with CPLEX in C++ over the next 25 years
- Built an app using Shiny framework for R to display optimal solutions on a map
- Wrote a manual on using CPLEX Concert Technology for C++ that has been downloaded and used by over 1000 users

Marketing Data Analyst, Aasaanjobs.com (job portal startup)   Jan 2015 – Jan 2016
- Investigated sources of user acquisition using SQL to optimize marketing spending
- Achieved 20,000 app downloads in three months since launch at an average cost of $1 per install

Strategy & Operations Analyst, Deloitte   Jul 2012 – Dec 2014
Supply Chain Transformation for a leading footwear manufacturer (10-month project)
- Classified SKUs into 3 classes based on sales; Forecasted demand and formulated aggregate plans for each class
- Created dashboards in Microsoft Excel and training slides in Microsoft PowerPoint for operations teams to generate schedule and procurement plan
- Improved order fulfilment from 65% to 90% and increased rated production capacity by 20%

KEY PROJECTS

Week In Memes (Static Website)   Feb 2019 – Present
- Wrote 50+ articles for a blog on trending topics hosted on Netlify using continuous deployment with Git
- Devised Python scripts for automation of social media posting to Twitter and Pinterest saving time by 80%
- Grew to 5,000 visitors/month using Search Engine Optimization, Email Marketing and Social Media at no cost

Programming Language Prediction (Natural Language Processing)   Mar 2019 – Apr 2019
- Collected data of almost 20,000 code files by scraping GitHub with its GraphQL API
- Built a dataset of files labeled with the language each file is written in
- Trained LSTM model in Keras to predict whether file contains Java or not with 99.8% validation set accuracy

Twitter clone (Web Application)   Jan 2019 – Mar 2019
- Built a web app with Flask back-end, Bootstrap template and SQLite database for user-generated posts like Twitter
- Implemented ElasticSearch to search for posts and users. Deployed to cloud via Heroku

EDUCATION

M. Eng., Industrial Engineering, **Texas A&M University**   Dec 2018
B. Tech., Mechanical Engineering, **Indian Institute of Technology Bombay**   Aug 2012