






Dwarkanath Prabhu

Web Developer

Full-stack web developer with startup experience, a proven knowledge of application development, database management, and search engine optimization.

Contact:

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Technical Skills:

- HTML

★★★★

3.5/5
- CSS

★★★★

3.5/5
- JavaScript

★★

2.5/5
- Python (+Flask)

★★★★★

4.5/5
- ASP.NET

★★

2.5/5
- SQL

★★★★

4/5

Soft Skills:

- Writing

★★★

3/5
- Public Speaking

★★★★

3.5/5
- Leadership

★★★

3/5
- Teamwork

★★★★

4/5

Interests:

- Memes

★★★★★

5/7
- Standup Comedy
- Digital Marketing
- Linguistics

Work Experience

Software Developer, Conference Management Services (CMS) Inc.

Oct 2019 - Present

- CMS Inc. is an event management company specializing in academic conferences
- Replaced existing HTML <table> registration forms with Bootstrap 4 CSS to enhance mobile usability
- Created web-based GUI for sponsors to select booth locations at a conference using CSS Grid
- Transitioned 15 year old PHP code to assign reviewers to papers to Python3
- Automated creation of post-conference proceedings as static HTML pages with full-text search across pdf files of presented papers

Research Assistant, Texas A&M University

Sep 2019 - Oct 2019

- Air Quality Monitoring (Data scraping)
- Scraped historical data of air quality from PurpleAir REST API for pollution monitors using Python (requests)
- Estimated risk to Asthma patients based on PM2.5 data and CDC reports

- 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

Jan 2015 – Jan 2016

- Aasaanjobs.com (now OLX People) is a job portal for entry-level jobs in India
- 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%

- Mid to long term strategy in India for a leading automobile manufacturer (4-month project)
- Conducted market research and forecasted demand for all vehicle segments for the next 5 years
- Drafted business plan to acquire at least 15% market share in each segment

Projects

Week In Memes (Static Website)

Feb 2019 – Present

- Week In Memes is a blog that maintains a record of all Indian meme templates as they are generated and used
- Wrote 100+ articles in 1 year using a Python script that scrapes Twitter for memes on trending topics
- Devised Python scripts for automation of social media posting to Twitter and Pinterest saving time by 80%
- Automated liking posts, commenting and following users on instagram; Increased followers by 300% in a week
- Grew to 7,000+ visitors/month using Search Engine Optimization, Email Marketing and Social Media at no cost

Equipment Failure Prediction (Classical Machine Learning)

TAMU Datathon, Oct 2019

- Analyzed a dataset of 76,000 drilling equipment failure events with 172 features
- Tested several models of SVM and Random Forest by tuning hyperparameters till the best validation set F1 score of 99% was achieved
- Deployed the best-performing model to a web app built in Flask that takes a csv file of features as input and predicts the probability of failure

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

Anomaly Detection on Multivariate Data (Unsupervised Learning)

Oct 2016 – Dec 2016

- Conducted PCA on a manufacturing dataset of 552 samples using Python to reduce dimensions from 209 to 4
- Applied quality control analysis with a threshold of 5% to remove out-of-control data till only in-control data was left

Education

M. Eng., Industrial Engineering, Texas A&M University

Dec 2018

B.Tech., Mechanical Engineering, Indian Institute of Technology Bombay

Aug 2012