Anish Narkar

Available From: 08/17/2020 Onwards
Currently on F1 OPT (1st year) expires on 02/09/2021

CONTACT

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PROFILE

M.S in Data Science graduated in Dec'2019

EDUCATION

2019
Northeastern University [Boston, MA]
Master of Science in Data Science

2016
Mumbai University [Mumbai, India]
Bachelor of Engineering in Computer Engineering

USED TECHNICAL SKILLS

- Python, R, SQL
- Flask, Git (GitHub, GitLab)
- Machine Learning (TensofFlow, NumPy, Matplotlib, Pandas, Scikit-Learn, Keras
- Docker
- SQL Server
- Statistics and Probability
- Data Visualization (Plotly-Dash)
- Natural language processing
- Microsoft Azure
- HPC

FAMILIAR TECHNICAL SKILLS

- SageMaker
- Spark, Scala
- Map Reduce (Python-MRJob)
- AWS

EXPERIENCE

Feb 2020- Present (Till August)
ML Engineering Intern | MGH & BWH Center for Clinical Data Science

- Revived archived lumbar spine project which graded spinal stenosis from lumbar spine MRI examination
- **Trained 2D UNet for segmenting and extracting the position of spinal disks**
- Retrained multi-input, multi-task and multi-class **Resnext-50 model for grading the stenosis**
- Trained the model on in house GPU cluster by dockerizing the ML workload and submitting them as SLURM job to the cluster
- Modified the algorithms based on the observation of clinicians to improve the functioning of the model
- Integrated a bunch of codes to the in-house library which provided image manipulation features by writing unit tests and testing the codes

January 2019 - September 2019
Research Associate | Microfinance Opportunities

- Created and deployed a data portal which provided uploading, modifying and visualization functionalities for affiliates of Fair Labor Association on Microsoft Azure using Flask and plotly
- Developed a portal which provided **companies/affiliates in over 30 countries to upload, visualize and analyze data with ease**
- Identified and reported data entries from garment worker diaries project which displayed anomalous behavior to field teams using statistical methods and feature engineering
- **Reduced 55% of existing reported entries** which reduced the load on field teams who had to manually reverify reported entries
- Leveraged Clustering techniques on financial transactions to analyze financial behavior of garment workers
- Developed and deployed a dashboard to visualize the analysis using Plotly-Dash on Azure which **provided concerned stakeholders a handy tool to observe flaws in current worker conditions**
- Generated tools which tracked survey status for respondents of study which **helped to raise any concerns with dropouts early**

PROJECTS

Aerial Maps

- **Converted satellite images to maps using 2 stage UNet**
- First stage identified structures from satellite scans which were superimposed over original image, second UNET trained on this image to generate maps

TLTR – Summary Please!

- Created **a transformer based seq2seq model** to summarize text
- Bleu score for the model was 0.66

Diabetic Retinopathy

- **Graded degree of diabetic retinopathy from retinal scans using models like RESNET-50 and XceptionNet**
- Accuracy of 81% was achieved by the best model

Additional projects and other deep learning model experiments on GitHub