Anish Narkar

CONTACT

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PROFILE

Candidate for PhD in Computer Science and Applications at Virginia Tech

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

FAMILIAR TECHNICAL SKILLS

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

EXPERIENCE

October 2020 – October 2021 | January 2019 - September 2019
Research Associate | Microfinance Opportunities

- Assisted project manager with technical details while preparing project proposal for creation of a data portal for Fair Labor Association
- 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
- Portal is used by companies/affiliates in over 30 countries and is used to access worker conditions around the world
- 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 in Bangladesh
- Automated data collection and wrangling for project in Peru which analyzed impact of wage monitoring on financial habits of teenagers

Feb 2020 - August 2020
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
- Integrated codes to the in-house library which provided image manipulation features by writing unit tests and testing the codes

ACHIEVEMENTS

- Dashboard created for FLA was awarded the 2021 Classy Award for Social Innovation

PROJECTS

Aerial Maps

- Converted satellite images to maps using 2 stage UNet
- First stage identified structures from satellite scans and second UNET trained on this image to generate maps

Diabetic Retinopathy

- Graded degree of diabetic retinopathy from retinal scans using models like RESNET-50 and XceptionNet