Bhaven Naik

Machine Learning Engineer

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Professional Experience

Research Assistant Intern, *St. Francis Xavier University* 09/2021 – 04/2022
Antigonish, Canada

- Conducted research on applications of GANs in Augmentation and Medical Imaging.
- Fine-tuned a PyTorch Lightning DCGAN on the HMDB51 dataset.
- Used PyTorchVideo's pre-trained classifier to test the performance of the augmented clips.

Internship Trainee, *EduVance* 06/2018 – 07/2018
Mumbai, India

- Worked on Python basics, File I/O, exception handling, lambda and map functions, list comprehension, and hands-on learning in Jupyter Notebooks.
- Worked on traditional Machine Learning algorithms like Decision Trees, Linear, Multivariate, and Polynomial Regression, Stochastic Gradient Descent, and Perceptron.

Skills

Technology

Python, PyTorch, Tensorflow, Keras, Pandas, Numpy, Scikit-Learn, Matplotlib, Docker, FastAPI, Hadoop, Flask, ReactJS, NodeJS, ExpressJS, HTML5, Bootstrap5, CSS3, Docker, PostgreSQL, MySQL, MongoDB.

Tools

VS Code, Docker, Jira, GitHub, Linux, macOS, Windows, Power BI, AWS (EC2 and S3), MS Office, JetBrains (PyCharm, WebStorm), Slack, Zoom, Microsoft Teams, Discord, Anaconda, Jupyter.

Certifications

IBM Machine Learning Essentials

Projects

ML Model Deployment Demonstration, *Python, FastAPI, Docker, PyTorch* 01/2023 – 01/2023

- Used Hugging Face Inference API for the ML model.
- Created Model API using FastAPI.
- Created Docker Image for deployment.

GAN Augmentation, *Python, PyTorch, PyTorch Lightning, PyTorchVideo* 09/2021 – 04/2022

- Researched the use of GANs in the field of Medical Science.
- Fine-tuned a PyTorch Lightning DCGAN on the HMDB51 dataset.
- Used PyTorchVideo's pre-trained classifier to test the performance of the augmented clips.

Exploratory Data Analysis, 01/2023 – 01/2023

Python, Jupyter, Pandas, Scikit-learn, Matplotlib, Seaborn

- Performed EDA on the Iris Flower dataset using Python and Jupyter Notebook.

Diabetic Retinopathy Identification, 03/2019 – 05/2020

Python, Tensorflow, Keras, Flask, HTML, CSS, AWS EC2

- Worked with TensorFlow Keras to fine-tune a pre-trained VGG16 model with custom classes.
- Created a client interface using Flask, HTML, and CSS.
- Deployed the project using an AWS EC2 instance.

Education

Master of Applied Computer Science (graduated), *St. Francis Xavier University* 2020 – 2022
Antigonish, Canada

Bachelor of Computer Engineering (graduated), *University of Mumbai* 2016 – 2020
Mumbai, India