

Bhaven Naik

Machine Learning Engineer

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🐙 Github

Profile

As a skilled Machine Learning Engineer with experience in Python, PyTorch, Tensorflow, Keras, Pandas, Numpy, Scikit-Learn, and Matplotlib, I am well-versed in the development and deployment of machine learning models. Additionally, my proficiency in Flask, ReactJS, NodeJS, and HTML5 enables me to build robust client interfaces. With a Master of Applied Computer Science from St. Francis Xavier University, I am eager to leverage my skills and knowledge to contribute to innovative projects in the field of machine learning.

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

Professional Experience

Research Assistant Intern, St. Francis Xavier University [🔗](#)

09/2021 – 04/2022

- Conducted research on applications of Generative Adversarial Networks (GANs) in Augmentation and Medical Imaging.
- Fine-tuned a PyTorch Lightning DCGAN on the HMDB51 (Human Action Recognition) dataset to generate augmented videos.
- Used PyTorchVideo's pre-trained classifier to measure the performance of the augmented clips w.r.t. original clips.

Antigonish, Canada

Internship Trainee, EduVance

06/2018 – 07/2018

- 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.

Mumbai, India

Projects

ML Model Deployment Demonstration, Python, FastAPI, Docker, PyTorch [🔗](#)

01/2023 – 01/2023

- Implemented inference requests to the ML model using the Hugging Face Inference API.
- Developed Model API using one of the fastest Python web frameworks FastAPI.
- Designed a Docker Container Image for deployment purposes.

GAN Augmentation, Python, PyTorch, PyTorch Lightning, PyTorchVideo [↗](#) 09/2021 – 04/2022

- Researched the applications of Generative Adversarial Networks (GANs) in the field of Medical Science.
- Developed a fine-tuned PyTorch Lightning DCGAN on the HMDB51 (Human Action Recognition) dataset to generate augmented videos.
- Used PyTorchVideo's pre-trained classifier to compare the difference between augmented clips and original clips.

Exploratory Data Analysis, 01/2023 – 01/2023
Python, Jupyter, Pandas, Scikit-learn, Matplotlib, Seaborn [↗](#)

- Performed EDA on the Iris Flower dataset using Python libraries like pandas, scikit-learn, seaborn, matplotlib.
- Implemented the analysis in Jupyter notebook for better visualization.

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 as severities of Diabetic Retinopathy.
- Created an easily usable client interface using Flask for the backend, and HTML for the frontend, and designed it using 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