Software Developer/Machine Learning Engineer

Skills

· Languages : Java, Python, SQL, JavaScript

• Frameworks : Spring Boot, React, Node.js, Express.js

• Data Analysis & Visualization : Machine Learning, Data Science & Analytics

• Other Skills: MySQL, MongoDB, Git, GitHub

Experience

Capstone Project Intern: AI & Deep Learning

Mar 2024 - May 2024

University of Oxford

Oxford, England

- Engineered advanced fine-grained image classifiers using EfficientNet and ConvNeXt, improving accuracy by 15% and reducing inference time by 10%.
- Optimized image processing pipelines with EfficientNet and ConvNeXt, leading to a 10% increase in model efficiency.
- Achieved significant performance improvements with EfficientNet and ConvNeXt, boosting classification accuracy by 22% and reducing training time by ~10%.

Projects

Dog Breed Classifier with ConvNeXt and EfficientNet Architectures

https://github.com/harshit4311/FineGrained-ImageClassification

- Utilized ConvNeXt and EfficientNet architectures to significantly improve accuracy and efficiency.
- Reduced inference time by enhancing image classification with advanced neural network techniques, resulting in a 10% increase in model efficiency.

Custom-Trained ML (YOLOv8) Model for Logo Detection in Videos

https://github.com/harshit4311/Pepsi-Coke-LogoDetection

- Developed and fine-tuned a YOLOv8 model, increasing logo detection accuracy by 30%.
- Implemented a pipeline to extract video frames and timestamps using the "av" library.
- Built a custom ML model on top of pre-trained YOLOv8, enhancing detection precision.
- Automated JSON output generation with precise timestamps for detected logos.
- · Achieved 95% detection accuracy, optimizing performance for diverse video conditions.

Achievements

- Guinness World Record at IIT-Bombay for making a Solar Lamp (2018).
- Among the top 1.14 % of applicants selected out of over 35,000 in the first round of the Summer of Bitcoin (SoB) 2024 program.

Education

BITS Pilani 2027

BE/B.Tech/BS in Computer Science 8.0 CGPA

Scaler School of Technology

2027

BE/B.Tech/BS in Computer Science

Licenses & Certifications

- Postman: API Fundamentals Student Expert certification

- Kaggle: Intermediate Machine Learning

- Kaggle: Intro to Machine Learning

- Udemy: Data Science