Balasuriya R

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balasuriyaranganathan.github.io/portfolio/

SUMMARY

Machine Learning Enthusiast with a strong foundation in algorithms and big data. Skilled in developing, deploying, and optimizing ML models using TensorFlow and PyTorch. Proven experience handling large datasets and leveraging cloud platforms (e.g., AWS, Azure) with Docker containers. Passionate problem-solver with a commitment to open-source contribution.

EXPERIENCE

Intel Oneapi Student Ambassador May 2023 - Present

https://devmesh.intel.com/users/balasuriya-r | Coimbatore, TN

- Developed ML based model for Brain tumor classification.
- Conducted a workshop on facial recognition using computer vision techniques.

Executive May 2022 - Present

IETE Student Forum | Coimbatore, TN

- Conducted workshop on Docker and Linux systems.
- Developed projects based on Oneapi toolkit

ML Lead

Intel IOT club | Coimbatore, TN June 2022 - Present

- Machine Learning lead of Intel IOT club, Amrita university
- Active Participation in club activities.

PROJECTS

Human detection in railway track using openvino View in GitHub

- Languages: Python
- Implemented yolo model for effective alert system.
- Optimised the model with Intel's opevino.
- Conducted detailed analysis on the implemented model.
- Gained proficient understanding on yolo v8, image segmentation, computer vision techniques.

Network Traffic Analysis using Autoencoders View in GitHub

- Language: Python
- Developed custom Autoencoder model for detecting anomaly in computer networks.

- Implemented both CPU and GPU version using cuda.
- Used real time data from wireshark for training the model.
- Conducted detailed analysis to study the performance of the Autoencoder model.

Fresh and rotten fruits and vegetable classification using ml techniques View in GitHub

- Languages: Python (pytorch)
- A full fledged computer vision project
- Implemented using GPU-accelerated Pytorch.
- Provided detailed comparison for different models used.
- Gained understanding on data augmentation, model checkpointing, and regularization techniques.

Finetuning gpt2 model using ppo algorithm View in GitHub

- Languages: Python
- Finetuned gpt2 using gpu (cuda)
- Learnt about using gpt2 and tokenizers

Note: Contributed to Open source projects

CERTIFICATIONS

Python Certificate - (HackerRank) View credentials

Python for Data Science , AI & Development - (Coursera) View credentials

Build Responsive Real-World Websites with HTML and CSS - (udemy) View credentials

Java programming - (Udemy) View credentials

SQL certificate- (HackerRank) View credentials

EDUCATION

Bachelor of Technology - BTech *(Computer Science)* June 2021 - Present (2025)
Amrita Vishwa Vidyapeetham (Coimbatore)
GPA – 7.47

High School (12th) July 2019 - May 2020
Sri Chaitanya Junior College, Bhaskar Bhavan
Percentage – 93.4

Programming Workflow and Skills

- Backend Development: Flask
- Machine Learning: TensorFlow, PyTorch, Scikit-learn, SQL(Postgres), Intel Oneapi
- Data Analytics/ Data Science: Streamlit, Pandas
- Computer Vision: OpenCV, Roboflow, Dlib

- Cloud Platforms/ Cloud Services: Microsoft Azure
- Containerization: Docker
- Programming Languages: Python, Scala, Java , c
- Competitive Programming: Proficient in Python (Leetcode, Hackerrank)
- Proficient in Git and Linux commands