DEEPAK NR

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PROFESSIONAL EXPERIENCE

INDrone Aero Systems **Remote**
Software Engineer(AI/ML) *January 2025 - July 2025*
- Collaborated on the installation of WebODM using Docker, as well as data integration and service management.
- Employed image processing methods to improve drone imagery.

Neoma Services Private Limited **Remote**
Computer Vision Expert *July 2024 - November 2024*
- Enhanced Face Recognition and Truck Detection projects by integrating GPU/CUDA technology, resulting in a 50% increase in performance optimisation.
- Developed projects utilising Jetson Orin Nano devices, harnessing CUDA to improve computational performance and successfully managed multiple RTSP streams through the use of threading techniques.
- Contributed to and actively participated in internal data science projects, bringing innovative ideas and solutions to enhance project initiatives.

ElectrifAI **Remote**
Associate Data Scientists *January 2023 - February 2023*
- Engineered a self-annotation system to annotate object detection data, streamlining the process for 200k+ image data and ensuring accuracy
- Delivered technical support to clients, resolving issues promptly, and collaborated with cross-functional teams, achieving a 10% increase in issue resolution efficiency.

Capulus Technologies Pvt Ltd **Chikkamagaluru, Karnataka, India**
Associate Software Engineer *January 2021 - September 2022*
- Streamlined two major projects namely Automatic License Plate Recognition and Face Recognition and improved the inference time of the models by 20%.
- Designed and custom-trained Object detection (YOLOv4, v8)/OCR frameworks (Tesseract OCR/CRNN) utilizing Nvidia CUDA and CUDNN
- Led the development and deployment of Mongodb and SQL databases in 2 projects, ensuring robust data storage and retrieval mechanisms.
- Applied Flask and FastAPI frameworks in 3+ projects
- Transformed model performance through ONNX format conversion, slashing model loading time by 30% and increasing data processing speed by 20%, enhancing real-time decision-making capabilities.
- Executed web scraping using Selenium and Beautiful Soup in Python to compile a diverse 6 GB+ dataset of text and images.
- Successfully implemented advanced object tracking algorithms, including SORT, Norfair, and Centroid tracker, in 2 distinct projects.
- Utilized OpenCV, NumPy, Scikit, and Python Image Library (PIL) for Image Processing.
- Curated and annotated 100k+ image data for training deep-learning models.
- Collaborated with product development and engineering teams to identify and prioritise critical technical issues; contributed to the successful resolution of 100+ bugs.
- Applied RabbitMQ for communication in projects.

PROJECTS & OUTSIDE EXPERIENCE

Multi Language Subtitle Generation Python Based WebApp - *Link to project*

A Guide to Custom Training YOLOv8 for Safety Helmet Detection - *Link to project*

Fire and smoke detection (flask-integration) - *Link to project*

Pothole and Plain road images classification - *Link to project*

CERTIFICATIONS

- **"Introduction to Machine Learning on AWS"** – *AWS, Coursera*
- **"Linear Algebra for Machine Learning and Data Science"** - *DeepLearning.AI, Coursera*
- **"Advanced Computer Vision with TensorFlow"** - *DeepLearning.AI, Coursera.*
- **"Neural Networks and Deep Learning"** - *DeepLearning.AI, Coursera.*
- **"Improving Deep Neural Networks: Hyperparameter Tuning, Regularisation and Optimisation"** - *DeepLearning.AI, Coursera.*

EDUCATION

Adichunchanagiri Institute of Technology **July 2016 - August 2020**
Bachelor's, Computer Science *GPA: 7.45*

SKILLS

Computer Vision, Data Science, Flask, Git, Keras, MongoDB, MySQL, NumPy, Pandas, RabbitMQ, Tensorflow, Python