Aman Singh

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EDUCATION

Maharaja Agrasen Institute of Technology **September 2019 – August 2023**
*Bachelors of technlogy in EEE - **CGPA - 8.9*** *Delhi, India*

Chhotu Ram Rural Institute of Technology **August 2017 – September 2020**
*Diploma in Electrical Engineering - **Percentage - 67.7%*** *Delhi, India*

TECHNICAL SKILLS

Programing Languages: Python,SQL
Programing Frameworks: Tensorflow, keras, Pytorch, OpenCv, YOLO, Huggingface, Pandas, Numpy, Matplotlib, Seaborn, Flask
Technology: Machine learning, Statistics, EDA, Deep Learning, Computer Vision, NLP
Developer Tools: VS Code, Jupyter Notebook, Colab, Lightning ai Studio
Version Control: Git, GitHub, Wights&Biases, MLflow, Comet ML ,Docker,

PROJECTS

Waste Detection WebApp | python, git, YOLOv8, weights&biases, opencv, streamlit

- Developed and fine-tuned a YOLOv8 model using a meticulously curated dataset of 10,000+ images spanning six waste categories, resulting in an mAP50 score of 54% and mAP50-95 score of 38%.
- Utilized Weights&Biases for performance tracking and model enhancements.
- Developed a Streamlit web application for real-time waste detection in images and live videos, deployed on Streamlit Cloud.
- Live site here

Plant Disease Recognition | python, tensorflow, keras, cnn, git, w&b, streamlit, streamlitcloud

- Built a CNN model over ResNet architecture and utilized a dataset of 70,000 images across 38 distinct classes to train the model
- Used Weights&Biases for effective performance tracking and version control of the model.
- Live site here

Student Performance Prediction | python, matplotlib, scikit-learn, xgboost, mlflow, git, flask

- Achieved a **96% accuracy** rate in forecasting student academic performance by developing and deploying a machine learning model.
- Managed data integrity by handling missing values and encoding categorical variables, enhancing quality.
- Identified and comprehended key factors influencing academic performance through thorough analysis.

EXPERIENCE

Horus Innovations **Aug 2023 – Nov 2023**
UAV System Engineer *Delhi, India*

- Integrated the stereo camera on a UAV system for depth estimation and distance measurement of tow Objects. With the help of OpenCV calculated depth estimation and applied triangulation for distance measurement between 2 objects.

CERTIFICATIONS

- Deep Learning - Coursera
- Certified Machine Learning Engineer - Coding Blocks
- Cloud Engineering and Data scince & Machine learning - Qwiklabs

ACHIEVEMENTS

- **AWS Deepracer Student League 2022** - Placed in top 3 globaly in September leaderboard
- **AWS Deepracer Student Indian League 2022** - Placed in top 10 finalist in Indian league
- **Sandover-KSHITIJ 2022** - Build a robot that can run across the arena of uneven topography in minimum time
- **AWS Deepracer Student League 2023** - Placed in top 6 globaly in August leaderboard