Ayon Somaddar

Machine Learning Enthusiast | Researcher

My Contact

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LinkedIn

GitHub

Technical Skills

- **Machine Learning.**
- **Python Programming.**
- **Deep Learning**
- **Neural Networks.**
- **Natural Language Processing.**
- **Tensorflow**
- **Keras**
- **PyToch**
- **Scikit Learn**
- **Computer Vision**
- **Git**

Achievements

- Academic Excellence Award: Performer Award Chandigarh University.
- Runner Up at HACK KRMU Hackathon .
- Applied more than ***110 Patent***.
- Runner Up at Project Exhibition at KCC Chandigarh University.
- Runner Up at UCMAS Abacus Competition.

Education Background

- **Chandigarh University**
  B.E Computer Science and Engineering AIML (Hons.)
  cgpa: 8.63
  Graduation year: 2025
- **Aryaman Vikram Birla Institute of Learning**
  12th Grade
  98.4% (Science Stream)
  Completed in 2021
- **Aryaman Vikram Birla Institute of Learning**
  10th Grade
  97.4%
  Completed in 2019

About Me

Passionate about pushing the boundaries of artificial intelligence and machine learning to solve complex real-world problems. Currently pursuing a Bachelor's degree in Computer Science & Engineering with a specialization in Artificial Intelligence and Machine Learning at Chandigarh University.

Experience

- Experienced in diverse machine learning techniques, including deep learning, natural language processing, and computer vision.
- Possess a research-driven mindset, focused on developing novel algorithms and models to advance the field of machine learning.
- Proficient in Python, Java, and C++ programming languages.
- Expertise in utilising popular frameworks like TensorFlow and Scikit-learn.
- Committed to contributing to the machine learning community through publications and sharing insights on emerging trends and techniques.

Research

The use of Deep Learning for the detection of Diabetic Retinopathy [IEEE] [Paper accepted for presentation](completed).

- To be published under the conference ICCPCT 23.

Soil Classification system using NIS systems.[Image Processing] (running).

- Use of Satellite Imagery and Near Infrared Spectroscopy.

Use of Vision Transformers for heavy vehicle detection system using drones (running).

- Using Vision Transformers, a newly introduced model to replace the use of convolutions. Aim of the respective research is to reduce the processing timing and increase the accuracy .

Project

Using Deep Learning methods for image caption generation. [Neural Networks](completed). [Link].

- Dataset picked up from Kaggle.
- Preprocessing using transformers.
- Applied VGG16 model.

Diabetic Retinopathy Detection.[Neural Networks](completed).

- Dataset picked up from Kaggle and DIARETDB0.
- Applied ResNet 152, SqueezeNet,Google Net and AlexNet models.
- Achieved an accuracy of 99.41 using ResNet.

Automated Number Plate Recognition System created for Devbhumi Hackathon at IIT, Roorkee and UPES, Dehradun.[Open CV and Neural Networks] (completed). [Link]

- Dataset picked from Roboflow.
- Trained using YOLO V5.
- Enhanced performance metrics: 98.4% mAP, 98.2% precision and 96.7% recall