

Vineet Madan

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Education

Indian Institute of Technology Ropar

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING

CURRENT C.G.P.A : **9.35/10**

Ropar, India

August 2017 - Present

Central Board of Secondary Education

AISSCE (CLASS 12): **93.6%**

AISSE (CLASS 10) C.G.P.A : **10**

Chandigarh, India

Skills

Programming Languages C/C++, Python, Java

Frameworks / Libraries PyTorch, Django

Softwares / Tools / OS Git, Linux(Ubuntu)

Projects

Experimented with Multi-Agent Diverse Generative Adversarial Networks

PyTorch

- Implemented from scratch the MADGAN models on 1D-MMG, CELEBA and MNIST Datasets in PyTorch
- Experimented by modifying the loss function proposed in MADGAN to enforce diversity
- Currently Ongoing

Satellite Image Segmentation

TensorFlow, Keras, Python

- Used the **U-Net** architecture for segmenting satellite images into seven classes
- Used python packages like **Matplotlib, Numpy, SciPy**
- Trained model over the Tesla K80 GPU on **Google Colab**

Media Monitor for Railways

Django, Python, Bash, Javascript

- Developed the front and back end for the web portal for monitoring news on the Indian Railways using **Django**
- Developed the database API(s) using django-tastypie
- Wrote a bash script for integrating and running the various components of the project
- Won at the **Smart India Hackathon 2019** for this project

Spam Message Filter

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- Developed a program which classifies text/email messages as spam and not spam
- Used **Levenshtein distance** for measuring distance between strings
- Implemented **K-Means Clustering Algorithm**

Service Robot

Django, Raspberry Pi, Python

- Developed a **web controlled robot** that could be deployed in a controlled and localized environment to transport goods
- Based on the line follower model using the Raspberry Pi platform
- Developed the web interface using the **Django** web development framework

Relevant Courses

Computer Science Deep Learning, Data Structures, Digital Logic Design, Programming Language Pragmatics and Paradigms, Computer Architecture

Mathematics Calculus, Linear Algebra, Discrete Mathematics, Differential Equations, Probability

Electrical Signals and Systems, Basic Electronics

Positions of Responsibility

Robotics Club Representative

June 2018 - May 2019

Conduct tutorial sessions and competitions for juniors and teach them various skills like coding.

School President

2014 - 2015

Represent over 3000 students of the school and organize various events

Miscellaneous

Smart India Hackathon **Winner** at Smart India Hackathon 2019 edition

Web and App Development Team Led the web development team of Advitiya-19, IIT Ropar's Technical Festival

Hostel Allotment Portal Developed a portal for allotment of hostel rooms for the students at IIT Ropar

JEE Rank Secured a rank of **1066** (Out of **1.5 million candidates**) in Joint Entrance Exam, 2017.

Institute Merit Prize Among the **Top 7%** students in class for the first four semesters

BAJA Volunteer Volunteered in the BAJA-SAE India event held in IIT Ropar in March 2018