# ROHAN GARG

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#### **EDUCATION**

## Indian Institute of Technology Roorkee

B.Tech in Production and Industrial Engineering

## RPS Public School, Rewari

Higher Secondary Certificate, Central Board of Secondary Education

Jun 2018 - Apr 2020

CGPA: 7.41/10.00

Percentage: 94.4%

#### FIELD OF INTERESTS

Deep Learning | Computer Vision | Generative Models | Pure Mathematics | Cryptography

#### TECHNICAL SKILLS

Pytorch(intermediate) | Hugging face library(intermediate) | Tensorflow(beginner) | Python Data-structures and Algorithms | C++

#### **PROJECTS**

## **DeepDreams**

Aug 2021 - Sept 2021

- Worked out on an algorithm, DeepDreams, which is used to visualize the patterns as perceived by different layers of a neural network.
- Developed an implementation of the DeepDreams algorithm in PyTorch by using pre-trained VGG-19 neural network.

## **Pathological Classification**

IIT Roorkee

Vision and Language Group

Apr 2021 - May 2021

- Developed a Deep Learning Classification model to detect retinal diseases from optical coherence tomography (OCT) X-ray images.
- Applied Transfer Learning by utilizing pre-trained ResNet50 in the model to improve accuracy and reduce training time.
- Also identified the ROI (Region of Interest) in the images, which is responsible for classifying the images in one of the four diseases. [Code]

## Literature Summary Repository

Aug 2021 - Present

- Contributed to a GitHub repository, maintained by Vision and Language Group containing summaries of research papers from various popular ML conferences.
- Summarized research papers from conferences like ICLR and CVPR.

[Repository]

## Spherico-Intel Gyrobot

IIT Roorkee

Cognizance 2021, IIT Roorkee Technical Fest

Feb 2021 - Apr 2021

- Designed a Solidworks model of a spherical Gyrobot capable of moving in any direction and transport small objects at short distances.
- Designed the Gyrobot's mechanical design and its interior motion mechanisms.

## Competitive Programming Repository

May 2022 - Present

- A repository for providing solutions to problems of Competitive Programming.
- The repository is updated at regular intervals with solutions of several problems. [Repository]

## HONORS AND AWARDS

## 2020 | **JEE (Advanced) 2020**

All India Rank 5167 out of 250,000 students (top 2%) in JEE Advanced 2020, for my admission at IIT Roorkee.

# 2018 | **HScTss Scholar (2018)**

Haryana State Talent Search Scheme Scholarship awarded by Haryana State Government to students with a scientifically oriented mind.

## MOOCS AND COURSES

Machine Learning	Coursera
Intro to Deep Learning with PyTorch	Udacity
Deep Learning Specialization	Coursera
CNNs for Visual Recognition(CS231n)	Stanford
Natural Language Processing with Deep Learning(CS224n)	Stanford
Probability and Statistics	IIT Roorkee
Introduction to Reinforcement Learning by David Silver	DeepMind

## COLLEGE ENGAGEMENTS

# Vision and Language Group

May 2021 - Present

Core Member

• A community of Deep learning enthusiasts that conducts regular discussions and workshops with a primary focus on research papers and research in a variety of fields like Computer Vision, Natural Language Processing and Reinforcement Learning.

WebLink

Blogs Jun 2021 - Present

Deep Learning

• I have written blogs on Medium in the domain of deep learning and research, of which, one was published on VLG medium space.

Blogs.

#### Field Hockey, IIT Roorkee

Jan 2021 - Present

- I represent IIT Roorkee at various sports tournaments as a goalkeeper in the Institute Field Hockey Team.
- Our team won the gold medal at the Institute hockey tournament.