Abhineet **Pandey**

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Education

Indian Institute of Technology Ropar — *Ropar, India*

B.Tech. in Computer Science and Engineering — *July 2017 - Present*

(Expected May 2021)

Current C.G.P.A : **8.84/10**

Secondary Education

TSBIE (Class 12, 2017): **97.6%**

CBSE (Class 10, 2015): **10.0 CGPA**

Skills

Programming Languages C/C++, Python

Frameworks / Libraries MongoDB, SQL, Tensorflow, Keras, FastAI

Softwares / Tools / OS Android Studio, Git, Arduino, Linux

Work Experience

Spectrum Lab, IISc, Bangalore — *Under Dr. Chandra Sekhar | Python, Open3D*

3D Point Cloud Registration using Deep Autoencoder

Research Intern — *May - July 2019*

- Used deep learning approach to solve the problem of 3D registration of point clouds.
- Used Autoencoder to get potential matching regions in point clouds.

Projects

Media Monitoring System — *Python, BeautifulSoup | March 2019*

- An app and webapp made as a media monitoring system for Ministry of Railways, Govt. of India.
- Involved news scrapping from prominent new websites.
- Used Bing API for similarity check and ParallelDots API to get sentiment score.

Faculty Leave Portal — *PHP, MongoDB, SQL | Fall 2019*

- Developed a portal for handling leave applications in an academic institute environment.
- Used both NoSQL (MongoDB) and PostgreSQL for database management.

Gesture Recognition using Myo-Armband — *Python, Qt (C++) | Nov 2018*

- Worked under Dr. Puneet Goyal, IIT Ropar.
- Used Myo Armband for getting EMG and pose information and neural networks for classification.
- Used Qt framework to develop basic GUI for gesture detection.

Recommendation Systems — *Python | October 2019*

- Used Collaborative Filtering to develop recommendation system for movies in an explicit feedback scenario.
- Developed and compared various types of the same, i.e. user based, item based, using clustering etc.

Other Projects — *Miscellaneous*

- Performed Satellite Image Segmentation by using modified u-net architecture.
- Implemented basic reinforcement learning algorithms in **OpenAI Gym**.
- Did **Object Localisation** using **Keras** in **FlipkartGrid Challenge** .
- Did work on quality assessment of wikipedia articles based on various factors.
- Made a mechanical prosthetic arm controlled using EMG sensors via Arduino..
- Implemented **K Means** from scratch in **C++** for **spam detection** in SMS using **NUS SMS Corpus** .

Relevant Courses

Computer Science Data Structures, Digital Logic Design, Computer Architecture, Applied AI, Introduction to Database Systems, Design & Analysis of Algorithms, Operating Systems

Mathematics Discrete Mathematics, Linear Algebra, Probability and Statistics, Differential Equations

MOOCs Practical Deep Learning(FastAi)

Miscellaneous

Smart India Hackathon Winner at Smart India Hackathon (Govt. of India) Software Version (Under Ministry of Railways), Nagpur, India 2019

Inter IIT Tech Meet Got 4th position in an event with problem statement being satellite image labelling, Dec 2018.

KVPY Fellow Qualified for the KVPY Fellowship program by DST, Govt. of India. (2016)

JEE Rank Secured a rank of **1470** (Out of **1.5 million candidates**) in Joint Entrance Exam, 2017.

Institute Scholarship Recipient of JEE Merit Scholarship from the institute.

Debating Member of debating team of the institute. Finalists in SRCC's SRDF, New Delhi 2019 (Novice Category).