Pranjal Bhatt

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Indian Institute of Technology Ropar

# EDUCATION

## IITROPAR

Btech in Maths & Computing

May 2023 | Rupnagar, Punjab

## LBSSCHOOL

High School

May 2019 | RK Puram, New Delhi

# LINKS

Codeforces:// [thesixpathguy](https://codeforces.com/profile/thesixpathguy)

*\*(Blue Coder - Top 3% in India)*

CodeChef:// [thesixpathguy](https://www.codechef.com/users/thesixpathguy)

*\*(4 star coder)*

GitHub:// [thesixpathguy](https://github.com/thesixpathguy)

LinkedIn:// [Pranjal](https://www.linkedin.com/in/pranjal-bhatt-3b9b53199/) [Bhatt](https://www.linkedin.com/in/pranjal-bhatt-3b9b53199/)

# COURSEWORK

Data Structures

Discrete Mathematics

Algorithms

Probability & Statistics

Linear Algebra

Theory of Computation

Numerical Analysis

Calculus

Machine Learning *(Udemy)*

Deep Learning *(Coursera)*

# SKILLS

## PROGRAMMING

* C++/C • Python
* JavaScript\*
* Matlab\*
* HTML/CSS\*

*\* Working Proficiency*

## FRAMEWORKS/LIBRARIES

* Django • Docker
* Scikit-Learn • TensorFlow (Keras)\*
* NumPy\* • Pandas\* • Matplotlib\*
* Bootstrap\* • Pygame\*
* Git & GitHub
* OS - Windows & Linux\*

*\* Working Proficiency*

# EXTRACURRICULAR

•Volunteer - Participated and organized Plantation drives and Blood donation camps conducted by NSS, IIT Ropar.

•Delegate - HPAIR 2021 *(Harvard University)*.

# PROJECTS

**ONLINEJUDGESYSTEM** | C++, Django, HTML/CSS, Bootstrap, Docker

May 2021 – Jul 2021 (Done in team of 2)

* Built an Online judge platform in Django that remotely runs codes and judges if the submitted code is correct/wrong/inefficient in real time.
* Explored docker techniques of isolation for security against untrusted codes.
* Deployed on GCP using Gunicorn and NGINX. Can be horizontally scaled.

## DOGBREEDIDENTIFICATIONCHALLENGE-KAGGLE

May 2021 – Jun 2021 (Done in team of 3)

* Challenge was to classify breed of given dog images in one of 120 breeds with only 80 training images provided per dog breed.
* Trained couple of fully connected layers in CNN combining it with pre-trained Inception V3 model using Transfer Learning.
* Applied conditional Laplace smoothing to optimize multi-log loss function to get accuracy of 98.7% which beats about 99% of users.

## NUMERICALMETHODS|RICHARDSONEXTRAPOLATION

*(Course Project)* | C++, Matlab

Dec 2020 – Jan 2021

* Built C++ library for integrating and differentiating mathematical functions using Richardson Extrapolation.

•Used dynamic programming and achieved accuracy up to order of 10-9.

**LIVECONTESTTRACKER** | Django, HTML/CSS, Bootstrap Jun 2020 – Jul 2020

* Built a web platform for the students to keep them updated about ongoing and upcoming programming contests of popular coding sites. Used Django for back end.

# EXPERIENCE

**RESEARCHINTERN** | IIT Ropar - Dr. Shashi Shekhar Jha

Ongoing

•Working on finding non-linear reward functions in Reinforcement learning and predicting them using Deep Neural Nets to increase the performance of the AI agent.

## REMOTEPROBLEMSETTINGINTERN | HackerEarth

Ongoing

•Created algorithmic problems for HackerEarth’s problem database.

**CODINGCLUB** | Coordinator

Nov 2020 - Present | IIT Ropar

•Took lectures on algorithms and data structures. Also, prepared algorithmic problems for college and official CodeChef contests.

# AWARDS

2021 65/3600 *(Team Contest)* ICPC Amritapuri 2020 Preliminary Round

2021 45/4000 *(Indian Rank)* Google Hash Code

2021 253/10000 *(Global Rank)* Google Kickstart 2021 (Round D)

2021 National Finalist Toycathon-2021

1. 271/17000 Global Coding Challenge - Credit Suisse
2. 421/15000 Codeforces round 698 (div. 2)

2019 AIR 3089/150,000 JEE ADVANCED 2019

2019 99.72 percentile among 1.2 million JEE MAINS 2019