

Parth Goyal

☎ (+91) 7988175611 | ✉ 2017csb1095@iitrpr.ac.in | 📄 parthgoyal123

Education

Indian Institute of Technology Ropar

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING

CURRENT C.G.P.A : **8.39/10**

Ropar, India

August 2017 - Present

Central Board of Secondary Education

AISSCE (CLASS 12 PCM): **95.7%**

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

Hisar, India

Skills

Programming Languages C/C++ (Primary Language), Python, Dart (Basics), Javascript, Java (Basics)

Frameworks / Libraries TensorFlow, Keras, Android Studio, Flutter

Softwares / Tools / OS Git, Linux(Ubuntu)

Projects

Indian Coins Detection and Instance Segmentation using MASK R-CNN

TensorFlow, Keras

- Detects masks and predicts class for each instance of coin in the image and draws bounding boxes along with it
- Used the **ResNet-FPN-101** and **Region-Proposal-Network (RPN)** architecture along with ROI Classifier & Bounding Box Regressor for segmentation
- Converted masks to bounding boxes and manually annotated images using **VGG Annotator**

RISC-V Assembly Code Simulation

Javascript, Lexer, Python

- Converted Assembly code (RISC-V) to Machine code using Lexical Analysis
- Handled .data variables and .text variables and stored them in Memory after conversion
- Build classes such as CPU, System, Register, Registry Access, Main Memory and Control for simulation of the Machine Code

Neural Style Transfer

TensorFlow

- Implemented the Neural Style Transfer Algorithm created by Gatys et al. **A Neural Algorithm for Artistic Style**
- Generated the Style Matrix, to calculate the content and style costs and produce the style weights

Spam Message Filter

C

- 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**

Other Projects

Flutter, Dart | Raspberry Pie |

- Easy List App for keeping records of favorite items and managing them using Flutter
- Image to OCR to Speech using TTS engines for blind people on Raspberry Pie

Relevant Courses

Computer Science

Deep Learning Specialization (Coursera), Data Structures, Computer Architecture, Programming Languages and Pragmatics, *Operating Systems, *Database, *Analysis and Design of Algorithms

Mathematics

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

Electrical

Signal and Systems

Positions of Responsibility

Branch Representative

June 2018 - Present

Represented my CS batch 2017 and acted as a bridge between students and academic staff.

Smart India Hackathon (SIH) Mentor

February 2019 - March 2019

I was the mentor of 2k18 CSE batch's team that went for **Grand Finale** for SIH, working on a Android Application (AGRIZONE) for Agriculture and Rural Development.

Miscellaneous

JEE Rank

Secured a rank of **1027** (Out of **1.5 million candidates**) in Joint Entrance Exam, 2017.

Institute Merit Scholarship

100% merit scholarship offered by the Institute for getting a rank under 1500.

GeeksForGeeks

Institute Rank 1 with over 300+ problems solved on the practice platform of GeeksForGeeks.

Pehchaan-ek-Safar (NGO)

Taught kids belonging to poor background as a part of NSS activity.

Roshni App for Blind People

Worked along with a PhD student to detect various Indian currency notes. Made dataset from scratch.

BAJA-SAE India Volunteer

Volunteered in the **BAJA-SAE** India event held in IIT Ropar in March 2018 and appointed as 1st Year Head.