Parth **Goyal**

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Education

Indian Institute of Technology Ropar *Ropar, India*

B.TECH. IN COMPUTER SCIENCE AND ENGINEERING *August 2017 - Present*

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

Central Board of Secondary Education *Hisar, India*

AISSCE (CLASS 12 PCM): **95.7%**   AISSE (CLASS 10) C.G.P.A : **10**

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 scholorship 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.