Kumar Ayush

Indian Institute of Technology, Ropar Undergraduate Final Year Punjab, India (91) 9915372446 2015eeb1060@iitrpr.ac.in https://github.com/ghost-60

Education

Indian Institute of Technology Ropar / B.Tech

July 2015- Ongoing | CGPA - 6.75 (B-)

St. Michael's High School, Patna / Intermediate

July 2013- May 2015 | Percentage - 96.2

St. Karen's High School, Patna / Matriculation

2001-2013 | Percentage - 93.4

Research experience

Research internship / National Chung Cheng University, Taiwan

May-August 2018

Implementation of concept based on ACCV 2016 paper using LSTMs and hierarchical RNNs to detect and predict road crashes.

https://ghostninjablog.wordpress.com/2016/06/26/first-blog-post/

Haze removal / Publication (Due November 2018)

September-November 2018, Mentor - Dr. Murala, IIT Ropar

Implementation of a multi-channel multi-scale convolutional neural network to recover the original image from a hazy image.

https://arxiv.org/abs/1801.08406 (Previous version)

Self-driving car simulation/ Project under IIT Ropar software community

February 2018 - present, IIT Ropar

To develop and train an automated car using deep RL operating on dashcam video that could be scaled to similar decision-making application.

Neuroevolution for augmenting topologies/ Self-project

September-November 2017, IIT Ropar

Implementation of the concept based on the paper, by Kenneth O. Stanley which explains evolving neural structures using genetic algorithms.

Neural Artistic Style Transfer/ Self-project

October-November 2017, IIT Ropar

Implementation of concept based on the paper, Gatys et al., 2015 which explains that the content and style of an image are separable.

https://github.com/ghost-60/Neural-Artistic-Style

Mini-projects

Multi-agent pacman using RL/ Al course

2018

Kakuro solver using CSP / Al course

2018

IDT Algorithm for categorizing movie reviews / ML course

2018

CNN network for predicting steering angle / ML course

2018

SimpleRisc Simulator

2018

Developed the Functional Simulator in C++ for SimpleRisc ISA (with 21 instructions) that simulates the working of the SimpleRISC processor and its state with 5 pipelines.

Awards

ACM-ICPC 2017 regionals - Rank 25 out of 2300

Codeagon 2018 - Silver (Top 3 percentile)

Codeagon 2017 - Gold (Top 1 percentile)

Goldmann Sachs code sprint - Gold

Google kickstart 2017 - Rank 47

World codesprint 7 - Gold

Ad infinitum - Silver

Link to profile - https://www.hackerrank.com/ghost-60

Position of responsibility

Co-founder of Software Community IIT Ropar

Core member for Enactus IIT Ropar

Core member of creativity club IIT Ropar

Volunteer at Bloodconnect IIT Ropar