



# Raghwendra Dey

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## PACKAGE/TOOLS

PyTorch

Keras

sklearn

Numpy

Pandas

OpenCV

Git

ROS

Qt5

PyQt

## LANGUAGES

Python



C++



C



## INTERESTS

Machine Learning

Deep Learning

Convolutional Neural Networks (CNN)

Natural Language Processing

Computer Vision

Recurrent Neural Networks (RNN)

Robotics

## EDUCATION

### B.Tech. , Instrumentation Engg.

Indian Institute of Technology, Kharagpur, West Bengal

07/2018 – Present

CGPA : 9.13/10

Relevant Courses

- Discrete Structures (CS21001)
- Deeplearning.ai specialization (Coursera)
- AI for Robotics (Udacity)
- Programming And Data Structures Theory (CS10001) and Lab (CS19101)

### Intermediate (CBSE)

Chinmaya Vidyalaya, Bokaro Steel City, Jharkhand

04/2016 – 04/2018

Percentage : 93.6%

### Matriculation (CBSE)

D.A.V. Public School, Swang CCL, Bokaro

04/2016

CGPA : 10/10

## ORGANIZATIONS

Aerial Robotics Kharagpur, IIT Kharagpur, West Bengal (03/2019 – Present)

AI and Software Team Member

## ACHIEVEMENTS/COMPETITIONS

11th International Micro Air Vehicle Competition and Conference - IMAV 2019 Indoors (09/2019)

Part of the GOLD WINNING TEAM of IMAV 2019 - Indoors competition

Regional Mathematics Olympiad 2016 Qualifier

Qualified for RMO - 2016 from Jharkhand region

## PROJECTS

Aerial Robotics Kharagpur (ARK) (03/2019 – Present)

- Developed and Implemented various algorithms for efficient control and localization of drones based on ROS (Robot Operating System)
- Worked on SLAM (Simultaneous localization and mapping) using sensors like lidars, stereo cams, monocular cams, etc. and different types of features like ORB, SIFT, etc.
- Worked on various computer vision techniques for effective detection of shapes and features in an image
- Working on an App (GUI) for drone delivery in PyQt

International Micro Air Vehicle Competition and Conference - IMAV 2019 Indoors (09/2019)

- Implemented a neural network for flag detection and worked on its variations and tuning
- Worked on various ways for detecting and tracking rectangles and color frames
- Developed parsers for inventory management
- Worked on PID controllers for effective controlling of drones
- Worked on systematization of the code base, dividing it into classes and integration of various sub-routines

Open IIT Data Analytics (09/2019)

- Part of the Open IIT Data Analytics Team (TEAM NAME : ONE HOT TEAM)
- Developed a prediction model for Customer Lifetime Value (CLV) considering various factors like salary, education, job, etc for an insurance company