# Kousik Rajesh

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## EDUCATION

### INDIAN INSTITUTE OF TECHNOLOGY, GUWAHATI

BTech in Computer Science and Engineering
Exp 2022
**9.66/10.0 Grade Point Average**

### RYAN INTERNATIONAL SCHOOL CBSE

2016 - 2018 | Greater Noida
Senior Secondary: 97.4% | Ranked first
High School CGPA: 10.0/10.0

## COURSEWORK

Deep Learning Specialization
- Neural Networks
- Hyperparameter tuning
- Structuring ML Projects
- Convolutional Neural Networks
- Sequence Models

Machine Learning
Version Control with Git
Linear Algebra(Mathematics II)
Algorithms and Data Structures*
System Software Lab*
Discrete Mathematics*
Probability Theory and Random Processes*
Number Theory and Algebra*

** Ongoing courses*

## SKILLS

### PROGRAMMING

***Languages:***
Python • C++ • C • JavaScript* • Shell*

***Frameworks and Libraries:***
TensorFlow • Keras • Pandas • Sklearn • Numpy • OpenCV

***Miscellaneous:***
Git • Data Analysis • Web Scraping • HTML • CSS* • ROS • Arduino • SQL • LaTeX*

** Elementary Proficiency*

## PROJECTS

### RAMAN | Humanoid robot

VIEW
Ongoing | 4i Labs, IITG
- Project Raman is a powerful android robot being designed in the form of an adult human and supports face recognition, head tracking and chatbot capabilities
- Currently working on the hands and enabling Raman to replicate human poses in real time
- Tried implementing different convolutional models for 3D human pose estimation from RGB-D data captured using Intel® RealSense™ cameras.

### RUBIK'S CUBE SOLVER

VIEW
March 2019 | Robotics club, IITG
- A Rubik's cube solving bot using Computer Vision which scans and solves a 3x3 Rubik's cube
- Implemented a unique unsupervised learning based method for color classification of Rubik's cube
- Created a GUI for displaying cube state

### LEAF CLASSIFICATION

VIEW
October 2019 | Kriti 2019
- A convolutional model for leaf classification of the Northeastern United States 185 tree species dataset
- Achieved a classification accuracy of 88% on test data

### ENIGMA

VIEW
Ongoing | Personal Project
- Using Deep Learning to crack ciphers such as the Caesar and Vigenère cipher
- Implemented LSTM models which were able to learn the ciphertext with close to 100% accuracy

### BROWSING BAD

VIEW
July-August 2019 | Technothlon 2019
- A multilevel interactive web-based puzzle game for the mains event of Technothlon
- Implemented front end of several interactive brain-teasers using Bootstrap and JavaScript

## POSITIONS OF RESPONSIBILITY

- Core Team Member at **IITG.AI**
- Core team Member at **4i Labs, IITG**
- Project Manager at **Equinox - Astronomy club, IITG**
- Organizer, **Technothlon**

## ACHIEVEMENTS

| | | |
|---|---|---|
| 2018-2019 | Hacktoberfest | Made 4 open source contributions |
| 2019 | 2nd position | Leaf classification ML hackathon |
| 2019 | In National Top 25 teams | AI Hackathon organised by CDAC and NVIDIA |
| 2017-2018 | Top 1% | KVPY(SX) Fellowship |
| 2015-2016 | Top 1% | NTSE Scholarship |