

# Apoorva Kumar

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LinkedIn | Github

## EDUCATION

### IIT GUWAHATI | B.TECH

MAJOR IN ELECTRONICS AND ELECTRICAL

2016-Ongoing | CGPA: 8.13 / 10

MINOR IN COMPUTER SCIENCES

2017-Ongoing | CGPA: 9.5 / 10

### ST. MICHAEL'S HIGH SCHOOL

MAY, 2015 | PATNA, INDIA

XIth from CBSE | Grade: 95.2 %

### DON BOSCO ACADEMY

MAY 2013 | PATNA, INDIA

Xth from ICSE | Grade: 94.2 %

## COURSEWORK

### UNDERGRADUATE

Signal, Systems and Networks

Semi-Conductor Devices

Digital Systems and Microprocessors

Formal Automata

Theoretical Foundations of Computer Science

Probability and Random Processes

Data Structures and Algorithms

Principles of Communication

### ONLINE COURSES

Machine Learning

Data-Structures and Algorithms

Deep Learning

Android App Development

Optimization Techniques

Structuring Machine Learning Projects

Convolutional Neural Networks

Natural Language Processing<sup>a</sup>

## SKILLS

### ROBOTICS

ROS • OpenCV • Gazebo<sup>b</sup> • Rviz

### PROGRAMMING

Python • Java • C++ • C • Unity3D

### PYTHON LIBRARIES

Tensorflow • Keras • Numpy •

Requests

### MISCELLANEOUS

Android App Development • Web

Request Handling

### OPERATING SYSTEM

Windows • Linux<sup>b</sup>

<sup>a</sup>Ongoing Course

<sup>b</sup>Intermediate Knowledge

## EXPERIENCE

### APPSECURE | API DEVELOPER

May 2018 - July 2018 | Bengaluru, India

- Implemented a combined software for active sub-domain and port scanning for web-servers.
- Using the above mentioned scanner on websites, trained a model to predict the presence of a word in the web-server directory or sub-domain.

## PROJECTS

### ARLE | AUTOMATED ROBOT FOR LIBRARY ENHANCEMENT

June 2017 - Ongoing | 4i Labs, IIT Guwahati | Github | 9 member team

- Working to completely automate the library of IIT Guwahati.
- Presently working on designing the self-driving vehicle to traverse the library.
- Implemented RGBD-Camera(Kinect V2) using iai\_kinect2 for 3d point cloud segmentation.

### TECHNOLOGIES FOR SOLDIER SUPPORT | HEALTH MONITORING SYSTEM

Dec 2017 - Jan 2018 | 5<sup>th</sup> Inter-IIT Tech-Meet | Github | 3 member team

- Created a fully functional health support system for soldier completely Incorporated in their normal uniform.
- The system used 3 sensors namely MPU9250, Heart Rate Sensor, Temperature Sensor to estimate physical health conditions.
- Initially used Random Forest for classification later switching to Neural Networks.

### ROBOTIC AUTOMATED ARM

Jan 2017 - Mar 2017 | Robotics Club, IIT Guwahati | 3 member team

- A Robotic Arm which detects any specified colour and picks up the object of the given colour.
- Full 360degree motion in space.

## POSITIONS OF RESPONSIBILITY

### IITG.AI | CO-FOUNDER

Feb 2018 - Present | Guwahati, India

IITG.ai is the AI community of IIT Guwahati for nurturing talent among the students and to establish collaborative projects with experts all around the world.

### ROBOTICS CLUB IIT GUWAHATI | SECRETARY

April 2018 - Present | Guwahati, India

Robotics Club, IIT Guwahati does all robotics related activities in campus. My task is to manage this team of robotics 86 robotics enthusiasts and help them achieve their tasks.

### ARLE, 4I LABS | TEAM HEAD

April 2017 - Present | Guwahati, India

4i is an initiative in IIT Guwahati to fund students for large scale projects. ARLE, an idea presented by my team, was one of the first projects to be funded by this initiative.

### UMIAM HOSTEL | TECHNICAL SECRETARY

April 2017 - April 2018 | Guwahati, India

Spearheaded the task of managing all technical activities ranging from robotics to astronomy for the hostel.

## ACCOMPLISHMENTS

2018	1 <sup>st</sup> /11 Hostels	Electrovate   Kriti, 2017-18
2018	3 <sup>rd</sup> /13 IITs	Technology for Soldier Support   5 <sup>th</sup> Inter IIT Tech Meet
2012	3 <sup>rd</sup> /5000 Teams	Technothlon   Techniche 2012