

EDUCATION

- **Zakir Husain College of Engineering and Technology** Aligarh, India
Bachelor of Technology in Computer Engineering; CPI: 9.36/10 Aug. 2016 – May 2020
- **Senior Secondary School Boys, AMU** Aligarh, India
PCM, Percentage: 86% August 2014 - April 2016

EXPERIENCE

- **RoboSub 2019**
Computer and Vision Team September 2018 - Present
 - Working on vision, localization, perception and path planning of an Autonomous Underwater Vehicle (AUV)
 - **Technologies Used** : ROS, Ghazebo, Rviz, OpenCV, Python3
- **Softnerve Technologies** Remote
Software Development Intern April 2018 - June 2018
 - Created back-end and data-processing tools for IOT based devices. Worked on collection and analysis of sensor data and development of Neural-Network architectures to predict anomalies in smart homes.
 - **Technologies Used** : Spring Boot, Cassandra, MQTT protocol, TensorFlow
- **ABU Robocon 2017**
Electronics and Computer Team September 2016 - March 2017
 - Worked on feedback, control and hardware interfacing of a manually controlled robot. The team made it to the second round at national level and won Judges and Referees choice award.
 - **Technologies Used** : Arduino, Embedded C, Eagle PCB

PROJECTS

- **Virtual Stylus** : A gesture driven alternate Human Computer Interaction (HCI) interface. The project aims at using Computer Vision and Object Detection techniques to develop a Neural-Network model that precisely understands human hand gestures. This model will then be used to map gestures with system specific tasks. This will give the user an alternate way to interact with the computer.
- **AMU2IAS** : A Vue JS and Firebase driven website. The website allows IAS (Indian Administrative Services) aspirants and mentors to come together, discuss and interact.
- **Snowden** : An end-to-end text encryption Android app built using DES algorithm.
- **ZHCET Bot** : An interactive Facebook chat bot that can fetch college results.

SKILLS

- **Languages** : Python, Java, C, C++, JavaScript, Bash, MATLAB, SQL
- **Web Development** : Django, Flask, Vue JS, Spring Boot, SQLite, Firebase, Cassandra
- **Deep Learning** : TensorFlow, Keras, Caffe
- **Robotics** : ROS, Arduino, Raspberry Pi, Embedded C
- **Other Tools/Frameworks** : Git, GitHub, zsh, vim, LaTeX, jupyter, TravisCI, Android Studio
- **Technologies** : TCP/IP security, MQTT protocol, REST, Microservices architecture, Symmetric/Asymmetric encryption, Hashing and Salting

RELEVANT COURSEWORK

Deep Learning Specialization — Coursera, Machine Learning Crash Course — Google Developers, 6.006 Introduction to Algorithms — MIT, Networking for Web Developers — Udacity, Programming for Robotics — ETH Zurich

ACTIVITIES

- **ACM ICPC** : Participated in ACM-ICPC 2017-18 programming competition and qualified for regionals round.
- **Code Jam** : Participated in Google Code Jam 2018 and secured 1704 rank
- **Open Source** : Completed Hacktoberfest Challenge 2017, organised by Digital Ocean. Contributor at FOSSASIA, Hydra
- **Scholarships** : Google India Challenge Scholarship Recipient
- **AMU-OSS (Admin/Mentor)** : Pioneered the development of college's first open source society, AMU-OSS. Its objective is to provide a platform for students to get acquainted and engage in the world of free/libre software. The community, at present, has more than 150 members.