# Aayush Shrestha

## Electronics Undergraduate, Vellore Institute of Technology, Vellore

Highly organized, enthusiastic, hardworking individual always eager to learn about new technologies and looking for a responsible position to apply current skills required to achieve the interpersonal goals of the company.

aayushshrestha919@gmail.com ✉

+91 7294916495 📱

Jamshedpur, India 📍

aayush-11.github.io/aayush.github.io/ 🌐

linkedin.com/in/aayush-shrestha-1420901a9 in

github.com/Aayush-11 ⌕

## EDUCATION

### B.Tech, Electronics and Communication Engineering
Vellore Institute of Technology, Vellore

*07/2018 - Present*                     *Current CGPA- 8.85*

### 12th Standard , 10th Standard
Loyola School Jamshedpur

*04/2004 - 06/2018*                 *ISC - 86.75%, ICSE- 92.2%*

## ACADEMIC PROJECTS

**Cryptographic algorithms used in the defence sector**
- Detailed comparison between AES and DES and also performing file encryption and image encryption using the best algorithm obtained.

**3D Modelling of Sentinel Robot Using ROS**
- Made our very own levitating sentinel robot from the movie Matrix with autogenerating tentacles using ROS and Gazebo simulator. Also used Blender app for the 3D modelling of the robot to give it a more realistic view.

**Configurable Password based Door lock System using 8051 Microcontroller**
- Based on providing security using configurable password system to the traditional mechanical door lock systems which are used.

**Experimental design of Home Automation using IoT**
- Automation of home appliances using our smartphone through Wifi and the Blynk App.

**Self Stabilizing platform Using Arduino, MPU-6050**
- This platform will help old aged people to get a firm grip on objects. It is also used in surgery and camera stabilizing platforms.

**Electromyogram Signal Analysis Using MATLAB**
- EMG signal analysis is used for the detection of any disorder in the skeletal muscles. In this project, we pass the EMG signals of 3 patients, healthy patient, myopathic patient and neuropathic patient and observe the change in the signals produced for identifying the type of disorder.

## WORK EXPERIENCE

### Electronics Intern
Tata Steel Private Limited

*06/2021 - 07/2021*              *Jamshedpur (Work From Home)*

*Achievements/Tasks*
- Undergone vocational training on "Improving Electrical Safety at Shop Floor in Coke Ovens" and completed E-Learning modules on PLCs, Instruments and Control Systems and Induction Motor

*Contact: Dr. Manoj Kumar - +91 9204651685*

## TECHNICAL SKILLS

| Skill | Level |
|---|---|
| Electronics, IoT, Sensors, Microcontrollers, JAVA | ●●●●○ |
| Data Structures, Computer Architecture, Control Systems | ●●●●○ |
| C/C++, Python, MATLAB, R, Verilog, Cadence, NODE-RED | ●●○○○ |
| Data Analysis, Visualization, Machine Learning | ●●●○○ |

## ACHIEVEMENTS

**Quanta Hacks, Stem For Fem (01/2021 - 01/2021)**
*Won the second overall with an amazon gift card.*

**Holiday Hacks by MLH (12/2020 - 12/2020)**
*Won the third overall and also recognized by VIT as Special Achiever for winning in the hackathon.*

**Shark Hacks by MLH (12/2020 - 12/2020)**
*Won the best hardware hack among 200 international participants.*

## PUBLICATIONS

**Comparative Analysis and Implementation of Heart Stroke Prediction using Various Machine Learning Techniques (05/2021 - 07/2021)**
*Accepted and published by IJERT in Volume 10, Issue 6 ( June 2021)*

**Experimental Implementation of Covid'19 Safety Measures in Ride Sharing Cabs using Deep Learning and Internet of Things- Springer (02/2021 - 06/2021)**
*Detection based web application for safety of passengers in ride-shares*

**Experimental Design and Implementation of Fingerprint based Exam Hall Authentication system with Temperature sensing and analysis using Internet of Things (08/2020 - 12/2020)**
*Accepted and presented at IEEE ICPS conducted by ACRS, IIT Madras virtually. DOI: https://doi.org/10.1109/ICPS51508.2020.00012*

## CERTIFICATES, EXTRA-CURRICULRS

**R Programming - Offered by VIT University**
*Grade obtained: 90/100*

**Linear Circuits: AC Analysis, Sensor Circuits and Design, Electrodynamics**
*Offered by Coursera*

**Participated in several hackathons like Hack SRM, Hack Off V3.0 and GovTechThon**

## INTERESTS

IoT | Data Science | Microcontrollers | Music