# Aswin R

Student

My interest are Robotics, Computer Vision, and Machine Learning.



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### **EDUCATION**

### **Study Program**

Vellore Institute of Technology

07/2020 - Present

Courses

 BTech, Electrical, Electronics and Communications Engineering

### **WORK EXPERIENCE**

### **Avionics Engineer**

Team Aviators International

11/2020 - Present

Chennai

Chennai

The Official Aero modelling team of VIT Chennai, to make and Build micro class planes and drones and compete with other teams in competitions.

## **Robotics Researcher**

**HCL** Technologies

11/2021 - 06/2022

Chennai

### **Avionics Lead**

Team Aviators International

11/2022 - Present

### Project Intern

Robert Bosch Centre for Cyber-Physical Systems @ IISc

07/2022 - Present

Achievements/Tasks

 We are developing an autonomous chemistry lab assistant with a KUKA IIWA 14 R820 manipulator and mobile base. The system will be equipped with advanced sensing and perception technologies, and sophisticated algorithms and software to enable it to autonomously plan and execute experimental protocols

# **Co-Founder** ACK Robotics

07/2022 - Present

### **SKILLS**

As an engineer and programmer, I am skilled in Python, C++, and Java. I am proficient in machine learning frameworks such as Keras, TensorFlow, PyTorch, and scikitlearn. I also have experience in robotics and avionics design and engineering, as well as a strong background in machine learning and computer vision. Overall, I am a meticulous problem solver with strong communication skills and the ability to collaborate effectively with crossfunctional teams.

### **PROJECTS**

TDS-Meter

 This project is used to measure the Total Dissolved Solid Contents in a solvent and present the output into a serial monitor via Arduino.

### p2p-planned-motion-control

 To move bot from point to point, with a user defined line that uses Visual PID\* auto-correction and gyro optimizations.

### Arrhythmia Classification with DCNN using ECG signals

 My project involves the use of a Deep Convolutional Neural Network (DCNN) with attention layers to improve the accuracy of arrhythmia classification in ECG signals from the MIT-BIH dataset. This approach allows the model to learn and focus on relevant features and patterns within the ECG signals, leading to improved classification performance.

### Design of Shark Detection and Decoy Buoys

https://ieeexplore.ieee.org/abstract/document/10053408

### **ORGANIZATIONS**

Team Aviators International (11/2020 - Present)

Avionics Lead

HCL Technologies (11/2021 - 06/2022)

Robotics Researcher

Robert Bosch Centre for Cyber-Physical Systems @ IISc Project Intern

### **CERTIFICATES**

ROS for Beginners: Basics, Motion, and OpenCV

AWS Educate Machine Learning - DeepRacer (08/2022 - Present)

Amazon Web Services (AWS)

Machine Learning Pipelines with Azure ML Studio Coursera

Robotics Research Intern

HCLTech