

ASWIN R

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📄 aswin-dot-r.github.io/

🔄 github.com/aswin-dot-R

EDUCATION

High School (PCM with Computer Science)

Velammal Vidhyashram

06/2008 - 05/2020

Grade: 91.8%

B.Tech Electronics and Communication Engineering

Vellore Institute of Technology

07/2020 - Present

CGPA: 8.11

WORK EXPERIENCE

Project Intern

Robert Bosch Centre for Cyber-Physical Systems @ IISc

08/2022 - 06/2023

Bangalore

Achievements/Tasks

- To Automate a Chemistry Lab with the help of KUKA iiwa 7 DoF robotic arm to perform experiments remotely from all over world.

Robotics Researcher

HCL Technologies

11/2021 - 06/2022

Chennai

Achievements/Tasks

- Industrial Bin Picking with 6D pose estimation

Research Intern

Centre of Cyber Physical Systems, VIT Chennai

05/2023 - 06/2023

Achievements/Tasks

- Working on Bean leaf disease detection using hybrid architectures

Avionics Engineer - Avionics Lead

Team Aviators International

11/2020 - Present

Chennai

Official Aero Modelling Team of VIT Chennai

Achievements/Tasks

- Building UAVs like Drones, Planes with Creative Applications

Project Intern

MultiD

05/2023 - Present

Bengaluru

Achievements/Tasks

- Building a Commercial Agricultural Drone with Autonomous Capabilities

Project Intern

Anywhere Labs

Chennai

Achievements/Tasks

- Building a High ToF UAV for 3D mapping and Inspection.

SKILLS

Python

C

C++

Open CV

Robotics

MATLAB

ROS

Tensorflow

Keras

ISSAC Sim

PROJECTS

TDS-Meter [↗](#)

- Engineered a user-friendly interface that displayed real-time TDS values on a serial monitor, enabling efficient solvent management.

p2p-planned-motion-control [↗](#)

- Developed and fine-tuned a Visual PID control system that autonomously adjusted bot trajectory in real-time based on visual cues, resulting in a reduction of positioning errors by over 80%.

Deep Learning based Arrhythmia Detection [↗](#)

- Designed and implemented a CNN architecture with attention mechanisms, dynamically highlighting critical features within ECG waveforms To achieve a high accuracy of 98% in arrhythmia classification from the MIT-BIH dataset.

OptiPacker [↗](#)

- Tackled the famous Distributors pallet-packing challenge while incorporating immersive 3D visualizations. Demonstrated problem-solving skills to optimize packaging efficiency, coupled with dynamic visual representations.

Hand gesture replication with the SVH 5-finger arm [↗](#)

- Implemented cutting-edge computer vision techniques and integrated control from MoveIt to successfully replicate intricate hand gestures on the robotic hand, showcasing the power of technology and automation.

CERTIFICATES

Complete Data Science BootCamp [↗](#)

Udemy

AWS Educate Machine Learning - DeepRacer [↗](#)

Amazon Web Services (AWS)

Machine Learning Pipelines with Azure ML Studio [↗](#)

Coursera

Quantum Computing Fundamentals with Microsoft Azure Quantum [↗](#)

Udemy

ROS for Beginners: Basics, Motion, and OpenCV

Udemy

PUBLICATIONS

Design of Shark Detection and Decoy Buoys [↗](#)

International Conference on Intelligent Data Communication Technologies and Internet of Things (IDCIoT), Bengaluru, India, 2023

Deep Learning-based 6D pose estimation of textureless objects for Industrial Cobots

Advances in Robotics 2023 Conference, IIT Ropar