

Education

M.Tech | Manufacturing Systems Management

Government Engineering
College, Thrissur, Kerala, India
| 2018-2020

- Thesis: Industrial Bin-Picking Robot, Computer Vision, Deep Learning
- Honour: Project Fellow at Nodal Centre for Robotics & AI (NCRAI), Thrissur.
- CGPA: 8.25

B.Tech | Mechatronics Engineering

Nehru College of Engineering &
Research Centre, Thrissur, Kerala,
India | 2013-2017

- Honours: Won prizes in Robo-War competitions throughout Kerala. Full tuition & fees waiver scholarships.
- CGPA: 7.31

Graduate Project

Autopilot Drone

Developed an "AUTOPILOT DRONE" and tested successfully as a part of B.Tech Main Project. It is implemented using Arduino Mega 2.7 microcontroller with LEA-6H GPS and Telemetry Radio (433 MHz) (XT-60). Drone pathway was set using Mission Planar software and Tower App. A camera is fixed the drone, from which live feed and recording of video could be made possible with the use of the software, HONESTECH 2.5 installed on a laptop.

Master Project

Development and Testing of a Deep Learning Based Bin Picking System

Using PyTorch deeplearning framework, a 6-DoF Poses of objects in the bin is estimated and it has experimented with the usability of depth sensing cameras in operation room lighting. Creation of the 3D object models is done using Blender tool, which is for Generating synthetic training dataset with the help of Unreal Engine(UE4) and NVidia Deep Learning Data Synthesizer(NDDS) software. By deep-learning the model, the object poses with adequate accuracy is obtained.

<https://avinashsen707.github.io/>

Experience

Sr. Asst. Maintenance Engineer

Lazza Ice Creams India

July 2017 – August 2018

- Worked with AGVs using active RFIDs, PLC systems, Sensors, Extrusion lines, etc.
- Performed Ice-cream Automation Machine technical maintenance and Defective analysis.
- Supervised technical side of the Factory and Factory inspection.
- Handled on the job inspection and Factory Erection work inspection.
- Assisted Cold storage technical maintenance.
- Ensured spare stock checking.

Skills

Languages

• Python • C++ • C • Shell Script

Machine Learning

Frameworks

• PyTorch • Tensorflow • Keras

Algorithms

• CNN • RNN • LSTM

Game Engine and 3D Software

• Unreal Engine 4 • Blender

General

OS

• ROS • Linux/Ubuntu

Web

• MySql • HTML • JavaScript

Professional Training

Professional in Product Design using software Autocad, Catia & Ansys.

CADD Centre Thrissur, Kerala, India | June, 2017

SAP ABAP course TAW10 & TAW12 (Coll10).

NCERC Labs, Thrissur, India | January-May, 2017

Awards

- Received Second Prize in National Level Multifest for the event ROBO-WAR 2017.
- Elected as Treasurer of Mechatronics Association of the college for the academic year 2015-17.
- Elected as Volunteer of National Service Scheme (NSS) Unit-209 for the academic year 2015-17.
- Played as Captain and Wicket-keeper of the Berckumens Cricket League 2013, Archdiocese Thrissur.

