IIITDM KANCHEEPURAM

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RAHULKANNAN S

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EXPERIENCE

Software Developer — **AUV Society, IIITDM** — **2021-22**

- Worked majorly with developing and documenting control software, drivers for autonomous underwater vehicles in C++ and Python.
- Developed highly optimized sensor fusion algorithms implemented in C++ and ARM inline assembly.

EDUCATION

Chennai, India — **IIITDM Kancheepuram** — **2020 - 2024**

- B. Tech in Electronics and Communication Engineering. CGPA of 8.19

RELEVANT COURSES

- Data Structures
- Introduction to React (In progress)
- Algorithms (Coursera Audit)
- Computer architecture (Coursera Audit)
- Introduction to IoT and Cloud Computing (In Progress)

Tools and Technologies

- MongoDB, Nodejs, postman
- Docker
- git, github
- tensorflow, opencv, pybind11, CMake

Programming languages

- Javascript,TypeScript
- C++
- Java
- Python,
- GoLang

Projects:

Electron app for sensor calibration of AUV:

- Developed an web app using tensorflow.js and electron for sensor calibration.

Localisation Algorithm for Hydrophones:

- Developed and implemented a highly efficient Hydrophone sound localisation algorithm in C++ and inline ARM assembly.

Motion Control Library for underwater vehicle:

- Conceptualized and developed an generic, modular and easily reconfigurable motion control library for any AUV in C++ from scratch and exposed API via Pybind11.

Object localisation using Yolo V5 for underwater vehicle:

- Trained and deployed yolo V5 model for underwater object detection.

Cloud IOT based smart grid:

- Implemented a smart grid system using Docker, FIWARE, MongoDB,OpenADR and Mosquitto Broker in AWS.