SARATH M

CONTACT

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SKILLS

Machine Learning Frameworks

Tensorflow
Scikit-learn
NLTK

Visualisation & Data Processing

Pandas
Numpy
Flask
Bokeh
Plotly
Grafana
Twitter Bootstrap
PyQt/PySide

Continuous Integration & Test Automation

Jenkins
Robot Framework

Devops

Docker
Ansible

Other tools & frameworks

Kafka
ROS
MQTT
Redis
Influxdb

Development Tools

Git, SVN, Zsh, Vim, Emacs, VS Code, Jira

SUMMARY

A Machine Learning Engineer who is passionate about learning cutting-edge technology and solving real-world problems, currently working with 5 Years experience as a Specialist in Tata Elxsi

WORK HISTORY

2016 - Present
Tata Elxsi, Technopark, Trivandrum, Kerala
Specialist

2015 - 2016
Unisync Technologies, Vyttila, Kerala.
Engineer

EDUCATION

2014
Vector India Institute, Bangalore, Karnataka
Course in Embedded Systems

2010 - 2014
Govt. College of Engineering Cherthala, Cochin University Of Science and Technology, Kerala
B.Tech (ECE)

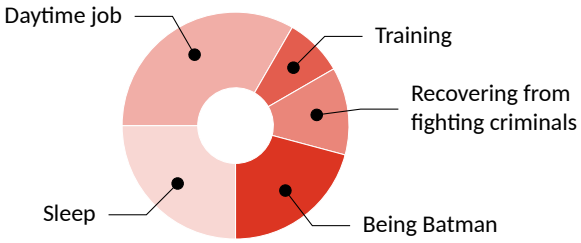
ACHIEVEMENTS, HONOURS AND AWARDS

- Awarded the highest rating **"Outstanding"** in three consecutive appraisal cycles in *Tata Elxsi*
- Final year academic project **"Hexapod"** was selected for the finals in State level competition
- **Black Belt** holder in Shito-Ryu style of *Karate*.

GENERAL SKILLS

Team Player | Passionate Programmer | Fast Learner | Energetic | Dedicated to perfection

WHEEL CHART



PROJECTS

- **Battery Management System** 2020 – 2021

Project Brief: The objective of the project is to create an intelligent Battery Management System for Electric Vehicles
Roles and Responsibilities: Initial prototype for testing SPI communication between BMS master controller and a slave board using Raspberry Pi. Create Machine learning algorithms that predict the age and SOC of the battery cell. Creating a GUI and test-suite for the project

- **Lidargen** 2018–2019

Project Brief: The objective of the project was to create a tool that would simulate the actual output from a LIDAR sensor. The tool takes three dimensional CAD objects as input and generates corresponding pointcloud. The User is given the freedom to place and orient the multiple meshes to create a virtual scenario
Roles and Responsibilities: To mathematical model the behavior of Lidar and simulate the same using Ray Casting. Designing a Qt based user interface.

- **UAV Based Driver View Enhancement** 2017 – 2018

Project Brief: To develop a proof of concept, using a Drone to enhance the view of the Driver and cover blind spots for a larger area around the vehicle
Roles and Responsibilities: Designing a State Machine to control the Drone, Create a web application as a User interface using Python as a backend

- **Pedestrian Detection & Characterization System** 2016–2017

Project Brief: The objective of the project is to use Deep learning based intelligent algorithms for Driver Assistance and feature addition to Autonomous driving platform
Roles and Responsibilities:
- Development of Deep learning algorithm
- Integration and testing with other modules providing additional ADAS features
- Testing and deployment of the ML model in a NVidia Jetson TX1 platform

- **Vehicle Detection** 2016–2017

Project Brief: Using Deep learning algorithms to detect, classify and locate vehicles on an urban road using Camera and depth sensors
Roles and Responsibilities: Development of Machine Learning algorithms for object detection, Testing and validation of the machine learning models, Data Analytics to visualize the performance and debugging the application code

- **IoT Project** 2014–2016

Project Brief: To develop a cloud based data acquisition system using Raspberry PI that communicates with Programmable Logic Controllers and sends data to Cloud
Roles and Responsibilities: Full responsibility of software design, implementaion and testing of the project, Deploying webserver in AWS, Communication between Raspberry Pi and PLC using Modbus Protocol