(+91)-9108569131 karthikrjss@gmail.com

Karthik Raj S S

linkedin.com/Karthikraj github.com/ssk-98

B.E, Electronics and Communication Engineering graduate with keen interest to be associated with an organisation that would provide an opportunity to work with a team that strives to grow with the organisation

EDUCATION

B.E, Electronics and Communication Engineering, BMS College of Engineering, CGPA: 9.01/10.00Aug 2016 — Sep 202012th Standard, St Josephs's Pre-University College, 92.5%May 2015 — Mar 201610th Standard, St Josephs's Indian High School, 96%Jun 2013 — Apr 2014

WORK EXPERIENCE

Associate Software Engineer

Jan 2021 — Present

Robert Bosch Engineering and Business Solutions

Bangalore

- Airbag Embedded Software Validation Engineer, primarily working on Drive Data Recorder and Diagnostic features
- Responsible for Test Specification, Test Automation Script Development for Hardware in Loop (HiL) validation using Perl Framework.

Intern Jan 2020 — May 2020

Robert Bosch Engineering and Business Solutions

Bangalore

- Designed Automation Tools for Signal Visualisation and Test status updation using python for Vehicle Motion Control Team
- Contributed in Vehicle Motion Control Software Validation using Matlab and Simulink

InternJul 2019 — Aug 2019Verikwest SystemsBangalore

- Worked on developing VIP for low power interface module in AMBA for ARM processor
- Designed Tests to verify the functionality of the module

PROJECTS

Deep Learning and Cloud Based Driver Monitoring System

Jan 2020 — June 2020

- · Designed a system to continously monitor driver to detect passive driver violations based on image classification
- Data such as type of violation, snapshot, GPS co-ordinates etc would be uploaded to cloud storage

Bomb Defusing Robot Aug 2019 — Dec 2019

- Designed a semi autonomous robot with Node MCU and RPi 3 controllers for safe defusing of explosives. Can be operated at a safe range with live video feed for the person controlling the bot
- · Fitted with an arm to cut wires in explosives, it can be remotely operated used android phones

Ant Bot Nov 2018 — Mar 2019

- Implemented as a part of E-Yantra a national level robotics competition. Basically a system for carrying Cargo to the destination based on colour coding of the cargo
- Worked extensively on Image processing and locomotion of the system. Analogy is drawn between ant as a bot, ant food as cargo and godown as ant hill, hence the name Ant Bot

Obstacle Detection System

Jan 2018 — Apr 2019

- The system was implemented on Arduino UNO controller, it was able to detect, measure distance and the angle at which the object
 was detected
- The presence of obstacles and the related parameters can be continuously displayed on a PC with simple GUI

TECHNICAL SKILLS

Programming/Scripting C, C++

C, C++, Python, Perl, Verilog, System Verilog

Tools/Libraries Matlab & Simulink, Vivado, NC Verilog, CANoe, Open CV, Keras

Protocols SPI, I2C, UART, CAN

ACHIEVEMENTS

2020	Published a paper on Deep Learning and Cloud based Driver Monitoring System in International Journal of Advanced re-
	search in Electrical, Electronics and Instrumentation Engineering

2019 Pre-finalist Eyantra 2018 edition

2018 Bronze Certificate in India Innovation Challenge Design Contest by Texas Instruments

2018 Organising Committee member of ELSOC (Electronics Student Body Association)

2018 Event Co – coordinator at Phase shift (Annual Tech fest)