(+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

- Designed Test Specifications, Developed Test Automation Scripts for Hardware in Loop (HiL) validation of Airbag Systems using Perl Framework.
- Designed and executed tests for Drive Data Recorder, Diagnostics, Fault Management and Warning Lamp Indicator modules

ntern 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
- Developed Matlab scripts for Vehicle Motion Control Software Validation

Intern Jul 2019 — Aug 2019

Verikwest Systems Bangalore

- Developed 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 continuously monitor driver to detect passive driver violations based on image classification
- Streamlined Data such as type of violation, snapshot, GPS co-ordinates for uploading 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, which can be operated at a safe range with live video feed for the person controlling the bot
- · Programmed a robotic arm to cut wires in explosives, it can be remotely operated using android phones

Ant Bot Nov 2018 — Mar 2019

- Implemented a system as a part of E-Yantra a national level robotics competition for carrying cargo to the destination based on its colour coding
- Programmed the Image processing and locomotion of the system.

# **Obstacle Detection System**

Jan 2018 — Apr 2019

- · Implemented the system on Arduino UNO controller to detect, measure distance and the angle at which the object was detected
- Developed a GUI to continuously display obstacles and related parameters

### **TECHNICAL SKILLS**

**Programming/Scripting** 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)