







PERSONAL INFORMATION



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Sex Male | Date of birth 22/12/1992 | Nationality Indian

JOB APPLIED FOR

Full time position in Embedded software development

WORK EXPERIENCE

16/04/2017–Present

Work Student (Software Development)

Robert Bosch (Thermotechnology), Stuttgart (Germany)

- Developed a test automation tool for HMI image processing with Python and Robot Framework that saved 32 hours of work.
- Developed JavaScripts, VBA macros to improve the productivity of HMI testing by 16 hours.
- Project Management tools : More than 2 years of experience working with Agile methodologies using Jira - Kanban and confluence.

03/07/2018–04/12/2018

Master Thesis in Deep Learning

Universität Stuttgart, Stuttgart (Germany)

Topic : Network Reduction of Deep Neural Networks (DNN)s during training with Quantization.

Grade : 1.0

- Aim: Designing a new network reduction algorithm to reduce the memory and computational complexity of DNNs, while training.
- Datasets experimented with : MNIST, Fashion-MNIST, SVHN and CIFAR-10.
- Architectures used : VGG-16, LeNet, CNN - Dense Layer combinations.
- Applications : Embedded Systems, Automotive and Medical domains - Possibility to train optimized networks on less expensive hardware on field.

07/08/2014–29/09/2016

Associate Engineer

Robert Bosch Engineering and Business Solutions Private Limited, Bangalore (India)

Work domain : Embedded Systems

1. RF based soil moisture sensor (IoT - Embedded systems) :

- Requirements analysis, Development and Testing for RF based Soil Moisture Sensor (Complete V -Model) based on a Marvel Semiconductor Microcontroller.
- Designed a empirical model to characterize a capacitive sensor probe based on the sensor data captured in different environmental conditions.

2. Audio Amplifier 360W (Analog Electronics, Test Automation) :

- Developed a test automation tool using NI's LabVIEW to perform 30 functional tests (SNR, THD, Crosstalk ...etc) with Audio analyzer. It saved approximately 50 hours of manual testing.
- Extended the software to support validation testing - EMI/EMC.

Was awarded the "Best Employee for increasing the productivity" of the project - Audio Amplifier 360W.

EDUCATION AND TRAINING

17/10/2016–24/01/2019

Master of Science in Information Technology

EQF level 7

University of Stuttgart, Stuttgart (Germany)

GPA : 1.8

Major Focus: Machine learning, Embedded Systems and Mobile Computing

Projects : 1. Transaction Level Modelling and Direct Memory Access with System C and C++.

2. Prostate Cancer Segmentation from MRI and PET images using classical machine learning with MATLAB.

3. Speaker Recognition with probabilistic approach and Gaussian Mixture Modelling with MATLAB.

4. Mobile Apps development with Android Studio to control Bluetooth Low Energy (BLE) beacons.

07/08/2010–01/05/2014

Bachelor in Electrical and Electronics Engineering

EQF level 6

Ramaiah Institute Of Technology, Bangalore (India)

GPA : 1.42

Bachelor Thesis :

Voice Controlled Economic Home Automation System

Speech recognition with C# and smart control of home appliances via Arduino as slave from a self developed C# application running on a personal computer.

PERSONAL SKILLS

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
German	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Organisational / managerial skills

- Co-ordinated a Technical Event - "Aavishkar", a National level technology symposium comprising of 250 members.
- Spearheaded a technical team of 4 members for 1 year at Robert Bosch.

Job-related skills

- Programming Languages : Python (Advanced) , C++ (Advanced), C#(Advanced), MATLAB (Intermediate).
- Machine Learning Framework : TensorFlow (Advanced) , Keras (Intermediate).
- Microcontrollers: Arduino, Freescale-MPC5605B, Raspberry-Pi.
- Others : Git, Javascript, SQL, LtSpice.

ADDITIONAL INFORMATION

Honours and awards

- Selected as one of the top three pitches in " **Hackathon - Stuttgart-2018** " to pitch our idea in " **Fintech-2018** " held on November 12th 2018
- Winners in Project exhibition "Pradarshana-2014" for Voice controlled Economic Home Automation System at Ramaiah Institute of Technology, Bangalore, India.
- Winners in Line Follower, a robotic event in Robodeum 2011 at Amrita University, Bangalore, India.
- 2nd place in Mobile Controlled racing, a robotic event in TECHNOZION 2012 at National Institute of Technology, Warangal, India.