CURRICULUM VITAE

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OBJECTIVE

A Challenging position, which keeps me abreast with new technology, allows me to show my capability to full strength, so that the growth of the company and me should be eminent.

WORK EXPERIENCE

Embedded Software Developer **01.02.2016 –**

Infineon Technologies AG, Augsburg.

- Embedded software development for Java Card operating system.
- Responsible for java card virtual machine and software configuration management.
- Built various software tools to facilitate daily software continuous integration process.

Embedded Developer **01.11.2015 – 31-01-2016**

COBI-Connected Biking for everyone, Frankfurt.

- Developed PWM low-level driver for driving RGB channels of LED front light of the bike.
- Bug fixing, test case implementation.
- Procured knowledge in CAN bus e-bike driver development.

Master Thesis **01.04.2015 – 30.09.2015**

KUKA Roboter GmbH, R&D Technology Development, Augsburg.

Research Topic: A framework for non-expert robot programming facilitated by a self-localizing smart device.

Objective: A smart device (Project Tango Smartphone) equipped with high-end sensing capabilities facilitates the programming of industrial robots in the field of logistic tasks such as pick-and-place and packaging.

- Created requirement analysis, compared and used computer vision state-of-the-art algorithms and APIs.
- Developed an android app to publish the on touch 2D pixel coordinate.
- Developed algorithms and implemented in C++ on ROS platform to locate objects and box.

Internship **01.09.2014 – 28.02.2015**

KUKA Roboter GmbH, R&D Technology Development, Augsburg.

Research Project: Developing pick-and-place robotic applications using Project Tango Smartphone on ROS (Robot Operating System) platform.

- Developed an android app from scratch to parse super frame for depth & RGB images and publish live images into ROS network over (Wi-Fi).
- Realized 2D to 3D transformation algorithm.

Application Engineer **05.07.2010 –19.08.2013**

Microchip Technology Private Ltd (INDIA), Bangalore.

- Responsible for providing embedded solutions to the customers and promoting to use of microchip's PIC microcontrollers and other products.
- Developed embedded application software.
- Developed peripheral validation libraries for PIC microcontrollers in C.
- Upheld established coding standards in all developed software designs and code.
- Edited & published multiple technical documents such as Datasheets, FRMs, Migration Guide, and programming specification for 8, 16, and 32-bit PIC microcontrollers.
- Reviewed and responded to internal and external customer inquiries in a timely manner.

EDUCATION

Hochschule Darmstadt, Germany **Sep 2013 – Feb 2016**	Masters in Electrical Engineering System Design (C++ & UML), Technical Project Management, Design and Test of Microelectronic Systems (FPGA & ARM), Complex Digital Architectures, Advanced Feedback Control (Matlab & Simulink), Advanced Automation (Matlab & PLC), and Advanced Robotics.
The National Institute Of Engineering, Mysore **Sep 2006 – June 2010**	Bachelor of Engineering in Electronics and Communications Engineering (First Class with Distinction). Basic and advanced Mathematics, Object Oriented Programming using C++, Data structure using C++, Image processing, Electronic Circuits and Design, Signals & System, Digital Signal Processing, Analog and Digital Communication, Microcontrollers, Microprocessors.

SKILLS

General: Good understanding on - concepts in microelectronics, embedded systems, mathematics, object oriented programming, java card, microcontrollers and robotics.
Programming Languages: Assembly**,** C, C++, Python, C#, and Java.
Microcontrollers & Processors: PIC18, PIC24, dsPIC, PIC32, 8051, ARM Cortex, MIPS, and 8085.
Microcontroller fundamentals: ADC, DAC, Timers, PWM, DMA, WDT, RTCC, IC, OC, and PTG.
Communication Buses: SPI, I2C, RS-232, and CAN.
IDEs: Eclipse, Visual Studio, Android Studio, MPLAB 8, MPLAB X, and Keil uVision.
Software tools: Git, Gerrit, Git Extension, Jenkins, LabVIEW, Borland Together (UML).
Wireless communication modules: Zigbee (Maxstream XBee RF Module), and Bluetooth (RN-42 module).
Lab Equipments: Agilent &Tektronix Oscilloscope, Function generator, Digital multi-meters, DC Power supply, Thermonics , Soldering.
Industrial Robots : Programming KUKA LBR iiwa 7 R800.
Languages: English & Hindi (native proficiency), German (B1), and Kannada (mother tongue)**.**
Other Skills: Software Configuration Management, Presentation, Test Automation, Documentation, Unit Testing, PCB Design, Requirement analysis.
WebPage

PERSONAL TRAITS

- Willing to learn new technologies.
- Self-motivated.
- Able to understand work responsibility and follow accordingly.
- Good resource management and a self-starter.

HOBBIES

Yoga, Cooking, Hiking, Cycling, and Badminton.

(Mallikarjun Tirlapur)