

AHMAD HASSAN MIRZA

Diplomand at Bosch GmbH



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Ahmad.hm2



https://github.com/ahmadhmirza/



13.10.1988



Pakistani



WORK EXPERIENCE

Jan 2020 - Jul 2020

Master Thesis - Robert Bosch GmbH, Stuttgart, Germany.

Design and development of an inter company software collaboration platform using Service Oriented Architecture and RestAPIs.

- A look into software development, using S.O.A and DevOps in a large company.
- Development of a platform which enables, offering tools and software as web services.
- ECU Base software build process migrated from monolithic to S.O.A.
- Development of a Machine Learning(ML) and Image Processing Service.
- Gives user access to various ML services by simple API calls without any tool setup or extensive coding.

Jul 2019 - Dec 2019

Intern - Robert Bosch GmbH, Stuttgart, Germany.

Automation of ECU software build process for use in software sharing platform.

- Development of scripts, in python and batch, to automate the build process for ECU software.
- Enable software sharing between OEMs and Bosch.
- Proposed and successfuly migrated the code base to modularized architecture to enable easier maintenance of CI and CD pipeline for the software sharing project.

Jan 2019 - Jun 2019

Werkstudent - Fachhochschule Dortmund, Germany.

Project MoRoP (Mobile Robot Platform).

- Development of nav controller using laser scanner, odometry and ROS Navigation Stack.
- Development of a partner Android application to map the surroundings of the robot using on-board laser scanner.
- Path planning to navigate to a specified goal using the partner application.

Nov 2018 - Jun 2019

Research Assistant - Fachhochschule Dortmund, Germany. Project Avatar.

- Design and Development of an Android application capable of performing lip reading using only image processing.
- Research to identify optimum methods to solve the problem.
- - Used dlib(cross compiled for android), Tensor Flow, Python and Android platform to develop the application.

Nov 2013 - Jul 2014

Research Associate (Lab Engineer) - CIIT, Lahore, Pakistan. Lab - Digital Electronics and Microcontrollers

May 2011 - Oct 2013

Software Quality Assurance Engineer - Gameview Studios, Lahore, Pakistan.

QA Engineer on various game development projects.

- Writing and executing test cases.
- Took part in all the testing phases from development to release.
- Worked as concept design engineer with the graphics dev team on one of the projects.

Oct 2017 - Present

M.Eng Embedded Systems for Mechatronics - 1.7/4.0

Fachhochschule Dortmund, Dortmund Germany

Focus: Software development, Machine Learning for computer vision and image processing.

Projects Highlights:

- Robot with maze navigation to reach the destination using Embedded C (OpenRTOS).
- Architectural designing of "Autopilot Landing System" using Enterprise Architect.
- "Follow Me" Robots that follow an IR source, with convoy mode using Arduino Uno.
- Implementaiton of serial comm. protocol on LatticeXP2/17E FPGA using VHDL and Active-HDL for simulations.
- Implementation of several process scheduling algorithms for App4MC platform.

Aug 2014 - Jun 2016

MSc Micro and Nano Systems Technology.

University College Of South East Norway.

Focus: BioMEMS, Fabrication and Characterization of Lab-on-Chip devices.

Oct 2006 - Aug 2010

BSc Electrical Engineering

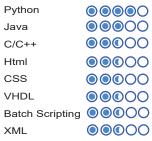
University of Central Punjab, Lahore, Pakistan.

Focus: Embedded systems and digital electronics.



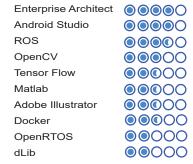
Skills

Programming Languages





Tools & Libraries





Languages



Publications

ITO-Free 3D MEMS Photodetector for Point-Of-Care Biosensing Devices.

IEEE-NIH 2016 Special Topics Conference on Healthcare Innovations and Point-of-Care Technologies.

 Comparison and Implementation of Open-Source Face Detection & Tracking Systems on Android Devices for use in home-based Speech Therapy - Poster

BMT 2019 - 53rd Conference of the German Society for Biomedical Engineering (DGBMT within VDE).



Hobbies

- Painting & Sketching.
- Road cycling.
- Volleyball & Tennis.
- Gaming.
- Reading up and experimenting with technology (softwares and libraries).

