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| *[Grab your reader’s attention with a great quote from the document or use this space to emphasize a key point. To place this text box anywhere on the page, just drag it.]* | Ahmad Hassan Mirza | | | |
| Master thesis student at Robert Bosch GmbH | | | |
|  | Filderhaupt str. 19a. 70599 Stuttgart, Germany. |  | +49 176 23932466 |
|  | [ahmadhasanmirza@gmail.com](mailto:ahmadhasanmirza@gmail.com) |  | Ahmad.hm2 |
|  | www.linkedin.com/in/ahmad-hassan-mirza/ | | |

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| Technical Tools |
| Java, Python, C/C++, HTML, CSS, REST API-Design and development, Android development, ROS, Matlab, Computer Vision, Image processing, OpenCV, Machine Learning, Tensorflow, dlib, OpenRTOS, XML, Flask, Web-services, Batch Scripting, Docker, Adobe Photoshop, Adobe Illustrato, Enterprise Architecture. |

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| Work Experience | |
| Jan 2020 – Jul 2020 | Master Thesis - Robert Bosch GmbH, Stuttgart, Germany. Design and development of an intercompany software collaboration platform using Service Oriented Architecture and RestAPIs.   * Pros and Cons of using S.O.A and DevOps for development in a large company. * Development of a platform that 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 and Image Processing Service. * Allows training of the base model on new data by calling a web service API without any coding and tool setup. |
| 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 & Bosch. * Proposed and successfully migrated the code base to modularized architecture to enable easier maintenance of CI & CD pipeline for the software-sharing project. |
| Jan 2019 – Jun 2019 | Working Student - Fachhochschule Dortmund, Germany. Project MoRoP (Mobile Robot Platform).   * Development of navigation 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 2019 – 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. |

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| Education | |
| 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. * Implementation of serial communication 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. |

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| Languages | | | |
|  | Speaking | Listening | Reading |
| English | C2 | C2 | Ce |
| German | A2 | B1 | B1 |
| Urdu | Native | | |
| Punjabi | Regional language | | |

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| Publications |
| * ITO-Free 3D MEMS Photodetector for Point-Of-Care Bio Sensing 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). |

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| Hobbies |
| * Painting & Sketching. * Road cycling. * Volleyball & Tennis. * Gaming. * Reading up and experimenting with technology (software & libraries). |