**Farooq Ahmed Zuberi**

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| **Objective** | Specialized Master’s degree in cognitive technical systems and expertise in advanced topics of Machine Learning and Artificial Intelligence. Seeking a position in research and development where I can apply and polish my problem solving skills for challenging tasks in robotics and autonomous driving domain. | | | |
| **Technical skills** | | | | |
| **Programming Languages**   * Proficient in: C/C++, Java, Python, Matlab * Familiar with: Lua**,** R, Bash, C#, PHP, SQL JavaScript   **Machine Learning**   * Hands-on practical experience with Caffe, Torch 7 forDeep Learning * Familiar with Tensor Flow, Keras, Theano, Lasagne and Pytorch. * Working experience with Mallet, R, Rapid Miner, Weka, SPSS, Scikit-learn (Numpy / Scipy) as well. | | | **Robotics and Computer Vision**   * OpenCV * Robotics Operating System (ROS) * Automotive Data and Time-Triggered Framework (ADTF)   **Others**   * Source Control: Git, SVN. * Platforms: Microsoft Windows and Linux. * Documentation in Latex, MS Office. * Familiar with AWS, CUDA, Map-Reduce, NoSQL databases, Docker, Android SDK, OpenGl and Web development. | |
| **Experience**  C:\Users\Farooq\Desktop\logo.png  **April 2017 – current**    **Jul 2016 – Dec 2016**    **Jan 2015 – May 2016**    **Jul 2013 – Sep 2014** | | **Machine Learning Software Engineer**  **Technology and Strategy Engineering**  Project: Robert Bosch GmbH *– Stuttgart Region, Germany*  Chassis Control – Driver Assistance (CC-DA)  **Master Thesis Student Robert Bosch GmbH**  Corporate Research *– Renningen, Germany*  Driver Assistance and Automatic Driving and Bosch Center for Artificial Intelligence  Topic: Semantic Segmentation for 3D Point Clouds using Deep Learning  **Research Assistant ( HiWi )**  **Automated Algorithm Design chaired by Dr. Frank Hutter &  Computer Vision Group chaired by Prof. Thomas Brox**  Albert Ludwig University of Freiburg *– Freiburg im Breisgau*, *Germany*  **Software Engineer**  **Creative Chaos (Pvt.) Limited**  *Karachi* , *Pakistan* | | |
| **Education**    **Oct 2014 - Mar 2017**    **Aug 2009 -May 2013** | | **Masters of Science (MS) in Computer Science**  **Albert Ludwig University of Freiburg**, *Freiburg im Breisgau, Germany.*  Major: Cognitive Technical Systems  CGPA – 1.4 out of 5 with 1.0 being the highest grade  Thesis: CloudSeg: Semantic Segmentation for 3D Point Clouds using Deep Learning  Grade of thesis: 1.5 out of 5 with 1.0 being the highest grade  **Bachelors of Science (BS) in Computer Science**  **FAST National University**, *Karachi, Pakistan.*  CGPA – 3.14 out of 4 with 4.0 being the highest grade  Thesis: ClickSafe: Mitigation and Prevention from Clickjacking  Grade of thesis: 3.8 out of 4 with 4.0 being the highest grade | |
| **Research and Publications** | | * **CloudSeg:** **Semantic Segmentation for 3D Point Clouds using Deep Learning**   + This thesis performs LIDAR perception task for autonomous driving, learning directly from raw data in order overcome the classical ML pipeline.   + CloudSeg, a novel CNN architecture, is designed and trained on LIDAR data recorded in urban environment, to perform end-to-end semantic 3D point cloud segmentation.   + CloudSeg evaluated point clouds from LIDAR to 11 distinct classes for semantic scene understanding. Qualitative and quantitative analysis of CloudSeg performance with 2D and 3D visualizations is also presented. * **ClickSafe/Mitigation and Prevention from Clickjacking**, 15th IEEE International Symposium on High Assurance Systems Engineering, 2014, Miami, Florida, USA. * **Dynamic Gesture Recognition using Machine Learning Techniques and factor affecting its accuracies**, 6th International Conference on Innovative Computing Technology (INTECH), 2016, Islamabad, PK | |
| **C:\Users\Farooq\Desktop\Audi-emblem-2016-black-small.pngProjects and Courses** | | * **Audi Autonomous Driving Cup 2016 (AADC 2016)**   + Autonomous Driving Challenge for development of automatic driving function.   + Implemented and designed Automated Driving Lifecycle comprising different modules in ADTF using C++.   + Development of integration module along with lane keeping, emergency braking, crossroad detection modules.   + Secured 5th position among the top German Engineering Universities. * **Advance Machine Learning Lab with Prof. Martin Riedmiller – Deep Learning** Hands on Practical Experience of Neural Networks in LUA and Convolutional Neural Networks in Torch 7 for MNIST Dataset and object detection/classification tasks. * **Courses – Master’s Degree:**   + Foundation of Artificial Intelligence   + Statistical Pattern Recognition   + Artificial Intelligence Planning   + Human Oriented Robotics   + System Infrastructure in Data Science   + Mobile Robotics   + Machine Learning   + Computational Neuroscience * **Seminars:** Advance AI Planning, Social Robotics, Machine Learning and Computational Neuroscience**.** | |
|  | | * **Coursera Certifications** : **Machine Learning, Introduction to Data Science, R Programming, Cleaning Data** * **Courses - Bachelor’s Degree:**   + Machine Learning   + Computer Graphics   + Data warehousing   + Concurrent and Distributed Systems   + Mobile Computing   + Information Processing Techniques | | |

# References will be furnished upon request.