**Farooq Ahmed Zuberi**

Phone: +4917685238383 / +4915216255435

Email: farooqahmedzuberi@gmail.com

Burckhardt-Str. 71, 70374, Stuttgart

DOB: 1st December 1990

|  |  |  |
| --- | --- | --- |
| **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 problems, establish myself as a seasoned AI practitioner. | |
| **Technical skills** |  | |
| **Programming Languages**   * Fluent 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 | **Technology and Strategy Engineering**  Project: Robert Bosch GmbH *– Stuttgart, Germany*  Machine Learning Software Engineer   * + Perception with Radar sensor for driver assistance functions   + Object type classification for radar data and reflections   + Development of Radar data simulator for evaluations of algorithms   + Analysis of data and features extraction for object classification   + C++ and Python tool development for Vehicle Monitoring   **Robert Bosch GmbH**  Corporate Research *– Renningen, Germany*  Driver Assistance and Automatic Driving and Bosch Center for Artificial Intelligence  Master Thesis Student Topic: Semantic Segmentation for 3D Point Clouds using Deep Learning  **Automated Algorithm Design chaired by Dr. Frank Hutter &  Computer Vision Group chaired by Prof. Thomas Brox**  Albert Ludwig University of Freiburg *– Freiburg im Breisgau*  Research Assistant HiWi  **Creative Chaos (Pvt.) Limited**  *Karachi* , *Pakistan*  Software Engineer   * + Agile Development using Scrum in Start-up culture   + Web Development with Yii and Magento web frameworks.   + Performance optimization and integration of Magento website with custom inventory and supply chain management system.   + Web Security optimization and payment gateway integration for a Banking Application.   + Restful Web services for various Mobile Applications. | *April 2017 - current*  *Jul 2016 - Dec 2016*  *Jul 2013 -*  *Sep 2014* |
| **Education** | **Masters of Science (MS) in Computer Science  Major: Cognitive Technical Systems**  Albert Ludwig University of Freiburg, Freiburg im Breisgau, Germany. CGPA – 1.4 out of 5  **Bachelors of Science (BS) in Computer Science** FAST National University of Computing and Emerging Science. Karachi, Pakistan. CGPA – 3.14 out of 4 | *Oct 2014 - Mar 2017*  *Aug 2009 -May 2013* |
| **Research & Publications** | * **Master Thesis:** **Semantic Segmentation for 3D Point Clouds using Deep Learning**   + Collaboration of machine learning and autonomous driving groups from Bosch and machine learning group of University of Freiburg. Evaluated by Prof. Thomas Brox and Dr. Joschka Boedecker.   + Perception in urban environment for autonomous driving with 11-class semantic point cloud segmentation from 64-channel LiDAR sensor   + Literature review of classical and deep learning based methods of semantic image segmentation and point cloud classification and segmentation.   + Designing of novel deep convolutional neural network (CNN) architecture for end-to-end semantic point cloud segmentation.   + Development of Python and MATLAB scripts for pre-processing of dataset and post-processing and analysis of results. C++ development for customization of Caffe – deep learning library   + Qualitative, quantitative analysis of experiments and results. Scientific discussions, collaborations and presentation of results with academic and corporate supervisors * **Bachelors Thesis: ClickSafe/Mitigation and Prevention from Clickjacking**, 15th IEEE International Symposium on High Assurance Systems Engineering, 2014, Miami, Florida, USA. A browser security add-on that mitigate click-jacking using detection system and collaborative user feedback. * **Dynamic Gesture Recognition using Machine Learning Techniques and factor affecting its accuracies**, 6th International Conference on Innovative Computing Technology (INTECH), 2016, Islamabad, PK | |
| Projects & Electives **C:\Users\Farooq\Desktop\Audi-emblem-2016-black-small.png** | * **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. * Research Assistantship in **Computer Vision: Caffe Unet, Brain Image Segmentation**   + Scripts for 2D/3D Deep CNN models for Brain Image Segmentation   + Development of Caffe Layers in C++ * Research Assistantship in **Automated Algorithm Design: Autoweka, Auto-Sklearn**   + Managing Autoweka: A hyper-parameter optimization tool for WEKA   + Dataset pre and post processing for auto-sklearn and AutoML competition. * **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** * **Electives 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.