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 AI research to learn and collaborate with expert researchers for establishing a successful research portfolio. Research interests lies in a broader domain of ML application for solving real world problems specifically machine perception, vision and sensor fusion, CNN architectures, computational neuroscience and generative models.

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 for Deep 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



April 2017 - current

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



A A

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



Jul 2013 - Sep 2014

Jan 2015 - May 2016

Software Engineer

Creative Chaos (Pvt.) Limited

Karachi, Pakistan

Education



Oct 2014 - Mar 2017



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

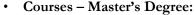
- This thesis performs LIDAR perception task for autonomous driving, learning directly from raw data in order overcome the classical ML pipeline.
- CloudSeg, a novel CNN architecture, is designed and trained on LIDAR data recorded in urban environment, to perform end-to-end semantic 3D point cloud segmentation.
- 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

Projects 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.



- 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.

