AmanullahTariq

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EDUCATION

- **Albert-Ludwigs-Universitt Freiburg** — Freiburg, Germany
  Masters of Science in Computer Science - Machine Learning — *March 2018*

- **University Of Karachi** — Karachi, Pakistan
  Bachelor of Science in Computer Science — *Dec 2011*

MASTER THESIS

- **Model pruning in convolutional encoder-decoder network**

  During my master thesis, I worked in the field of deep learning with the computer vision group of Prof. Thomas Brox, under the direct supervision of Prof. Matthias Teschner and Gabriel Leivas Oliveira . We worked on reducing the number of parameters and runtime of the state-of-the-art approaches for image classification and segmentation without compromising on the accuracy. In some cases, we reduced the size of the network by 50% while maintaining the accuracy of the network.

  `python` `tensor-flow` `torch` `segmentation` `deep learning` `opencv` `machine learning`

EXPERIENCE

- **Research Assistant** - **Fraunhofer IPM, Germany** (Sept 2017 - Feb 2018)

  Used deep learning and machine learning techniques for semantic segmentation in 3D point cloud and 2D images using Caffe and python.

  `python` `data visualization` `matplotlib` `seaborn` `pil` `opencv`

- **Student - Master Project** - **Audi AG, Germany** (Oct 2015 - Mar 2016)

  Participated in Audi Autonomous Driving Cup 2016 in Ingolstadt and got 6th position in Germany, applied deep learning techniques for lane tracking, crossroad detection and traffic sign detection on the data gathered through the ultrasonic sensor, camera and depth sensor.

  `c++` `caffe` `opencv` `machine learning` `computer vision` `qt` `opencv`

OTHER PROJECTS

- **Parking Space Detection**

  Worked on detecting the Parking Space for the car given 2D image from the Google maps and 3D point Cloud data of the current environment.

  `python` `c++` `qt` `opencv` `machine learning`

- **Point Of Sale System** - **Steepminds**

  Developed my own software for Point of Sale and it is one of our widely used products, more than 10 customers. It gives our customers the flexibility to manage their daily sales, get monthly and daily reports, manage accounts and furthermore manage different sales mediums including credit cards, cash in hand and others.

  `sql` `mvc` `marketing` `azure` `reporting`

HONORS AND AWARDS

- **First prize** in **Hackathon Energy Freiburg 2017**.

- **First position** at **Hackathon Newcomer Freiburg 2016**.

- Presented our idea to save electricity using **machine learning** at **Green Summer School 2017 Konstanz**.

- Participated at **Recoding Aviation Berlin 2017**.