Yuwei (Victoria) Qiu

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Education

Carnegie Mellon University, School of Computer Science

Pittsburgh, PA

Master of Computational Data Science (MCDS), CGPA - 4.0/4.0

08/2018 - 12/2019(Expected)

o Relevant Coursework: Introduction to Computer System.

Tsinghua University, Department of Electronic Engineering

Beijing, China

Bachelor of Engineering, CGPA - 3.8/4.0

08/2014 - 07/2018

- o Relevant Coursework: Data Structure & Algorithms, Machine Learning, Operating System, Computer Architecture.
- o Exchange Program: University of Pennsylvania, Department of Computer and Information Science.

Experience

Software Engineer Intern

Huawei Technologies

Offline End-to-End Text Recognition System

11/2017 - 01/2018

- o Cooperated with a group to construct an offline text recognition system utilizing multi-pathway CNNs and statistic conditional random field models with CAFFE.
- o Boosted accuracy to 96.8% on the 20GB CMCC Database with over 20 million training/validation samples.
- Resulted in the work being used in smart phone products as artificial intelligence tools.

Research Intern Tsinghua University

Interactive System for Human-Centered Data Collection and Analysis

12/2016 - 06/2017

- \circ Led a group in developing an interactive system using MATLAB and C++ for 1,280 sets of eye tracking experiments with over 1,000 candidates.
- Proposed and implemented an unsupervised learning approach with CAFFE to generate newly defined features.
- Contributed to a first-authored paper, accepted as oral presentation in ICIG 2017.

Projects

Dynamic Memory Allocator Package: System, C

Carnegie Mellon University | 06/2018

- o Built a dynamic allocation system with segregated free list and best fit searching algorithm.
- o Made efficient usage of space with an average utilization of 74.4%.
- o Achieved an average throughput of 15735 Kops/sec on an Intel CPU@3.10GHz machine with a benchmark throughput of 16920 Kops/sec.

Context Retrieval from GoPro Videos: Multimedia, PyTorch

University of Pennsylvania | 07/2017

- Designed advanced LSTM merged with traditional Multi-View Stereo algorithms for sequences processing.
- Established a system for 3D context reconstruction from a 12GB data set of blurry and narrow ego-centric videos.
- Obtained The Outstanding Undergraduate Research Award (top 1%).

Multilabel Image Classification API: ML/DL, MXNet

Tsinghua University | 03/2018

- o Developed residual learning models to concatenate deep neural networks including DPN and FPN.
- o Created an Application Programming Interface(API), increasing precision by 2.2% and 1.3% compared to the-stateof-the-art method on 1.5GB PASCAL VOC 2012 and 20GB MSCOCO 2014 respectively.

Facial Emotion Recognition: Vision, Caffe

Tsinghua University | 04/2017

- o Established deep networks based on various data sets including VGG-Face dataset, FER2013 public Test, FER2013 private Test and CK+.
- o Achieved a mean average accuracy of 92.4% exceeding the-state-of-art frameworks.

32-bit CPU Design and Implementation: Architecture, assembly

Tsinghua University | 04/2016

- Designed on an Altera FPGA and programmed with assembly languages including MIPS.
- Implemented a 32-bit pipeline MIPS CPU to execute basic commands and communicate with portable computers.

Skills

Programming: C/C++, PYTHON, MATLAB, HTML, LINUX, assembly languages(IA32, x86-64) Tools: MXNet, Caffe, PyTorch, TensorFlow, AWS, Microsoft Azure, Google API