Yuwei (Victoria) Qiu

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Education

Carnegie Mellon University, School of Computer Science **Pittsburgh, PA**

Master of Computational Data Science (MCDS), ***GPA - 3.9/4.0*** *08/2018 - 12/2019(Expected)*

- *Relevant Coursework*: Introduction to Computer System(A), Large-scale Machine Learning(A+), Topics in Deep Learning(A+), Advanced Cloud Computing(A).

Tsinghua University, Department of Electronic Engineering **Beijing, China**

Bachelor of Engineering, ***GPA - 3.8/4.0, Outstanding Undergraduate (top 5%)*** *08/2014 - 07/2018*

- *Exchange Program*: University of Pennsylvania, Department of Computer and Information Science.

Experience

Machine Learning and Relevance Engineer Intern **LinkedIn Corporation, CA**

Scalable Automatic Machine Learning *06/2017 - 09/2017*

- Mentored by Bee-Chung Chen(Distinguished Software Engineer) and worked with AI Algorithms Foundation Team.
- Implemented Auto-tuned neural networks model with Bayesian Optimization and AdaNet from scratch to deploy distributed model training on LinkedIn *1.13TB* jymbii dataset and LinkedIn *10GB* pymk dataset.
- Increased AUC by *1.3%* and *3.1%*, shortened training time by *3* and *2 times* compared to the currently used GLMix model.
- Framework has been applied for a patent and will be pushed into production in the next quater.

Research Intern **University of Pennsylvania, PA**

Trajectory Prediction From GoPro Videos *06/2017 - 09/2017*

- Advised by Proj. Jianbo Shi and worked in GRASP Lab.
- Implemented advanced LSTM merged with Siamese Neural Network for visual semantics learning and trajectory prediction.
- Established a system for 3D context reconstruction from a *12GB* data set of blurry and narrow ego-centric videos.

Research Intern **Tsinghua University, Beijing, China**

Interactive System for Human-Centered Data Collection and Analysis *12/2016 - 06/2017*

- Led a group in developing an interactive system using Python and C++ for *10GB* eye tracking data.
- 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

Photograph Style Transferring: GANs, PyTorch **Carnegie Mellon University | 05/2019**

- Construct a GAN based framework to transform photos of real-world scenes into Chinese ink wash style images
- Propose a newly defined edge-weakening adversarial loss and a arc-prompting adversarial loss.

Distributed ML Training: Spark, Golang, Kubernetes **Carnegie Mellon University | 04/2019**

- Stored *30TB* with the sparse format, the join-based communivation and all-reduce strategy.
- Deployed one-layer fully connected layer training of 10 iterations with *20 millions* features with in *30 mins*.

Attention-based Speech-To-Text Deep Neural Network: NLP, PyTorch **Carnegie Mellon University | 03/2019**

- Implemented an framework combined of LSTMs and CNNs, and beam search decoder for speech to text transcription.
- Ranked 1/148 out of all participants on kaggle.

Face Verification With Deep Embedding: Vision, PyTorch **Carnegie Mellon University | 02/2019**

- Extracted embedding with ensemble deep networks as face identifications trained *60GB* data.
- Achieved a mean average accuracy of *92.4%* exceeding the-state-of-art frameworks.

Large-Scale Data Analyasis with MapReduce: Cloud Computing, Java **Carnegie Mellon University | 09/2018**

- Implemented MapReduce program to process and aggregate the 30-day wiki dataset (*36GB* compressed).
- Used Terraform to configure, deploy, execute and debug MapReduce jobs on AWS EMR.

Skills

Programming: C/C++, Python, MATLAB, Java, HTML, Linux

Tools: PyTorch, TensorFlow, MXNet, Caffe, AWS, Azure, Google Cloud

Publications

- Qiu Y., Ma H., Gao L. (2017) Hardness Prediction for Object Detection Inspired by Human Vision. In: Zhao Y., Kong X., Taubman D. (eds) Image and Graphics. ICIG 2017. Lecture Notes in Computer Science, vol 10667. Springer, Cham