Yuwei (Victoria) Qiu

(412)403-9124 • yuweiqiu@andrew.cmu.edu • victoriaqiu.site

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, graduated with honor(top 10%)*** — *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 Automated Machine Learning — *05/2019 - 08/2019*

- Mentored by Bee-Chung Chen and worked with AI Algorithms Foundation Team.
- Implemented AdaNet from scratch, and deployed it using newly proposed network-level asynchronous distributed strategy on LinkedIn *1.13TB Job-You-May-Be-Interested-In* dataset and *10GB People-You-May-Know* dataset.
- Increased AUC by up to *3.1%* while using *3x* less training time compared to currently used GLMix model.
- The proposed framework is used to apply for a patent and will be pushed into production in the next quarter.

Research Intern — **University of Pennsylvania, PA**

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

- Advised by Professor Jianbo Shi and worked in GRASP Lab.
- Implemented an advanced LSTM model merged with siamese 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 — *12/2017 - 06/2018*

- 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**

- Constructed a GAN-based framework to transform photographs of real-world scenes into Chinese ink wash style images
- Proposed a newly defined edge-weakening adversarial loss and an arc-prompting adversarial loss.

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

- Used asynchronous distributed strategy to process *30TB* sparse-formatted tabular data with Kubernetes.
- Deployed one-layer fully connected network training of 10 iterations with *20 millions* features within *30 minutes*.

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

- Implemented a framework in combination of CNN and LSTM, and a 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 embeddings with an ensemble of deep networks as face identification and trained the model on *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 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: Python, C/C++, 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