

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), Natural Language Processing, Multi-modal Machine Learning, Deep Reinforcement Learning.

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 Analysis 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