Mengqing Jiang

mengqinj@andrew.cmu.edu • (412) 623-9754 • https://jiangmengqing.me

EDUCATION

Carnegie Mellon University, School of Computer Science — Pittsburgh, PA
Master of Science in Computer Vision (MSCV) — 2018 - Dec 2019 (expected)

Tsinghua University — Beijing, China
Bachelor of Engineering in Software Engineering | *GPA: 90/100* ***top 10%*** — 2014 - 2018

- **Selected honors:** Graduation with distinction, 2018; Science and Technology Innovation Scholarship, 2017; National Scholarship, 2016; Qualcomm WeTech Global Scholarship, 2015

PROFESSIONAL EXPERIENCE

Momenta, R&D Dept. — Beijing, China
Engineer Intern — Mar 2018 - July 2018

- Developed a pipeline for Lincoln MKZ dynamics simulation on Unreal Engine 4 with CarSim plugins
- Conducted large-scale automated safety tests for the auto pilot algorithms on Unreal Engine 4
- Investigated active sub-lane changing algorithms for autonomous car in the case of traffic congestion

SenseTime Inc., R&D Dept. — Beijing, China
Computer Vision Engineer Intern — Jun 2016 - Dec 2016

- Co-designed and developed a novel CNN model for image classification with attention mechanism, achieving 19.5% top-1 single crop validation error on ImageNet, and published a paper
- Reproduced computer vision baseline deep models, e.g. Faster-rcnn, RFCN (for object detection), ResNet (for image classification), FCN, DeconvNet, DeepLab (for image semantic segmentation) etc. on Caffe

RESEARCH EXPERIENCE

Berkeley DeepDrive, UC Berkeley — Berkeley, CA
Undergraduate Research Assistant under Professor Trevor Darrell — Jun 2017 - Dec 2017

- Detected pedestrians using LiDar point cloud and investigated Imitated Control for Vehicle Pedestrian Interaction
- Construct experimental system and infrastructure based on ROS for self-driving car, including data visualization dashboard, camera & LiDar calibration tools for sensor fusion, motion2control APIs, etc.

Deep Coding Group, HKUST — Hong Kong
Undergraduate Research Assistant under Professor Sung Kim (remotely) — Dec 2016 - May 2017

- Researched on Doodle2Code—CNN+LSTM based HTML Code Generation Given Hand-written Webpage Doodles
- Built a large-scale web screenshot dataset and collected hand-written webpage doodles; then conducted experiments on both datasets and achieved 49.21 BLEU score and no grammar error on the doodle dataset using transfer learning

PUBLICATIONS

1. Fei Wang, **Mengqing Jiang**, Chen Qian, Shuo Yang, Cheng Li, Honggang Zhang, Xiaogang Wang, Xiaoou Tang, "Residual Attention Network for Image Classification", CVPR 2017 *(spotlight)*
2. Shifeng Zhang, Jianmin Li, **Mengqing Jiang**, Bo Zhang, "Scalable Discrete Supervised Multimedia Hash Learning with Clustering", IEEE TCSVT 2017

SELECTED COURSE PROJECTS

Face Retrieval System Using Residual Attention Network — Fall 2017

- Built a face verification and retrieval system on Caffe. Trained the Attention-56 model on MS-Celeb-1M dataset, tested on LFW, and achieved 99.61% verification accuracy

SNP Set Analysis for Detecting Disease Association Using Ant Colony Algorithm — Fall 2017

- Implemented AntEpiSeeker Algorithm and chi-square independence test in Python to heuristically and efficiently find out the salient SNP positions that have epistatic interactions to the disease among a large-scale dataset

WeLearn (a WeChat web application) — Fall 2016

- Designed and developed a user-friendly mobile webapp based on WeChat for students of Tsinghua to manage their course information, assignment dues, notifications, etc. by timely crawling data from the university's websites

SKILLS

Programming languages: Python, C/C++, HTML/CSS/Javascript, Matlab, Java
Tools: PyTorch, Caffe, Tensorflow, ROS, Flask, Django, Qt, Latex