MENGXIAO LIN

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Education

University of California, Davis Sep 2019 - Mar 2021
M.S. in **Computer Science**

Fudan University Sep 2014 - Jul 2018
B.Eng in **Software Engineering** (Data Science & Technology)
Selected courses: Object-oriented Programming (A), Database (A), Web Programming (A), Machine Learning (A)

Skills

- Programming Language: C/C++, Python, Java, JavaScript, Rust, Scala.
- Libraries & Frameworks: PyTorch, MXNet, CUDA, jQuery, Vue.js, Qt, Android.

Work Experience

Researcher at Megvii Technology (Face++) Jul 2018 - May 2019

- Proposed a novel neural network for human pose estimation to ease the overlapping problem in crowded scenes and improved model performance by 10% on real-world data and 20% on synthesized data of crowded scenes.
- Proposed a meta-learning based pose estimation method in order to reduce memory cost, which achieves comparable performance with much fewer parameters.
- Led a team to apply neural architecture search on the face recognition task. We sped up face recognition models for smartphones by around 20% without reducing the accuracy.

Research Intern at Megvii Technology (Face++) Jan 2017 - Jun 2017

- Proposed a method that utilizes head position information to improve pedestrian detection performance.
- Optimized object detection performance on convolutional neural network for mobile devices (ShuffleNet). Paper published in CVPR 2018.
- Implemented high-performance channel shuffle and ROIAlign operators with CUDA.

Selected Projects

Natural Language Inference in MXNet June 2018 - Aug 2018

- Reimplemented decomposable attention model in MXNet Gluon framework under guidance of Dr. He He.
- The project was merged into `gluon-nlp`. Source code available at https://github.com/dmlc/gluon-nlp/tree/master/scripts/natural_language_inference.

Dependency Parser for Universal Dependencies Nov 2017 - May 2018

- Proposed a novel attention model for transition-based dependency parsing by incorporating information from the stacks and buffers in parsers.We improved UAS by around 1% on English and French corpus. Source code available at https://github.com/linmx0130/parserChiang.
- Worked as the core contributor and was responsible for design and implementation of FudanParser system, which was submitted to CoNLL 2018 Shared Tasks. Our work placed 17th in the rank list.

April Fool's Day Mobile Game Mar 2018 - Apr 2018

- Designed and implemented a quiz game about Fudan campus for *99 Degree News Club* of Fudan University.
- Deployed HTML5, Vue.js and Bootstrap to implement the game app. Compatible for all kinds of mobile devices and browsers for best user experience.
- Attracted 1000+ users on the first day it was launched.

Yet Another MXnet DETection Oct 2017

- Reimplemented Faster-RCNN algorithm in MXNet Gluon framework. Achieved a similar performance compared to the original paper.
- Source code available at https://github.com/linmx0130/ya_mxdet. 50+ stars!

Selected Publications [1]

1. Danlu Chen*, **Mengxiao Lin***, Zhifeng Hu* and Xipeng Qiu. A Simple yet Effective Joint Training Method for Cross-Lingual Universal Dependency Parsing. In *Proceedings of the CoNLL 2018 Shared Task: Multilingual Parsing from Raw Text to Universal Dependencies*, 2018.
2. Xiangyu Zhang, Xinyu Zhou, **Mengxiao Lin** and Jian Sun. ShuffleNet: An Extremely Efficient Convolutional Neural Network for Mobile Devices. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2018.
3. Xiaoqing Zheng, Jiangtao Feng, **Mengxiao Lin** and Wenqiang Zhang. Context-Specific and Multi-Prototype Character Representations. In *Proceedings of the Twenty-Fifth International Joint Conference on Artificial Intelligence (IJCAI)*, 2016.

[1] * indicates equal contribution