

MENGXIAO LIN

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Education

University of California, Davis

Sep 2019 - June 2021

M.S. in Computer Science

GPA: 4.0

Selected Courses: Distributed Database Systems, Operating Systems

Fudan University

Sep 2014 - Jul 2018

B.Eng in Software Engineering (Data Science & Technology)

GPA: 3.45

Selected courses: Object-oriented Programming, Database, Web Programming, Machine Learning

Skills

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

Work Experience

Research Engineer at Megvii Technology (Face++)

Jul 2018 - May 2019

- Proposed and implemented 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.
- Implemented high-performance channel shuffle in ShuffleNet in GPU and optimized object detection performance on convolutional neural network for mobile devices.

Selected Projects

Virtual Orchard

Jan 2020 - Present

- In charge of the frontend part in Virtual Orchard project, a agriculture analyzing software developed by Digital Agriculture Laboratory at UC Davis.
- Constructed the visualization dashboard with Vue.js and Leaflet and achieved user-friendly user interface based on satellite maps.
- Designed and implemented interactive data visualization tools with D3.js for analyzing agriculture data.

PytorchAegis: Data-Privacy Preserving Machine Learning Platform

Jan 2020 - Mar 2020

- Team leader of the project. PytorchAegis is a research project to utilize Intel SGX technology to protect user data when training machine learning models on the cloud services.
- Implemented the host memory enclave part and its communication with device memory of the prototype system with Intel SGX and Nvidia CUDA.
- The prototype system achieves almost the same training speed without sacrificing security of data.

Dependency Parser for Universal Dependencies

Nov 2017 - May 2018

- Proposed and implemented 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 the campus of Fudan University for *99 Degree News Club*.
- Deployed HTML5, Vue.js and Bootstrap to implement the game app. Compatible for all kinds of mobile devices and browsers.
- Attracted more than 1000 players and more than 300 new subscription 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_mxnet. 50+ stars!