

Wenxu (Mike) MAO

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Available for full time position upon graduation in May 2020.

Work Experience

Amazon, AI Lab, AWS, Shanghai, China May 2019 - Aug 2019
Software Development Engineer Intern

- Designed and implemented several numpy-like operators with auto-gradient for open source project apache/incubator-mxnet (including argsort, hstack, dstack and invert), with C++ backend and python frontend
- Wrote the official documentation for multiple mxnet.numpy operators available to tens of thousands of users
- Re-designed and developed computational graph interface to support integer and range slicing in graph generation, enabling numpy-like smooth user experience in the highly efficient symbolic interface

Quantum Information and Computation Initiative, HKU, Hong Kong SAR Sep 2018 - Apr 2019
Research Student, Supervised by Prof. G. Chiribella

- Solved for the if-and-only-if condition for the validity of the Kraus operators of superposition of quantum channels
- Simulated the superposition of fully depolarising channels by numerical analysis with a C++ program, and show its ability to enable communication under extreme noises

YITU Technology (an AI Unicorn), Shanghai, China May 2018 - Aug 2018
Software Engineer Intern in Machine Learning

- Reproduced and experimented SSD, Faster R-CNN in the TensorFlow detection API and Facebook's Detectron for internal record
- Optimized the training pipeline of SSD to improve training speed
- Lowered the missing rate of a 3-class detector by over 30% without hurting performance by replacing SSD with slimmed Faster R-CNN

Société Générale, Tech Division of IBD, Hong Kong Jun 2017 - Aug 2017
Software Engineer Intern

- Added an API to internal monitoring platform (in JAVA) to facilitate easy inclusion of new servers
- Improved alert-raising system by adding auto log filtering, which saved time for support group member up to 20 minutes per day

Jockey Club Youth EDcubator Program, Hong Kong Mar 2017 - Sep 2017
Technical Consultant and Teaching Assistant

- Helped local teachers design and conduct introductory level programming courses open to middle school students
- Acted as teaching assistant in teaching sessions

Technical Skills

Programming Languages: C++, Python, C, Java, Haskell

Technologies and Frameworks: Linux, Git, MXNet, Tensorflow, PyTorch, Django, Docker

Mathematics: Linear Algebra, Calculus, Scientific Computing, Statistics and Probability Theory, Algebra

Education

Cornell University, Cornell Tech, NYC, NY, United States Aug 2019 - May 2020
Master of Engineering in Computer Science

The University of Hong Kong, Hong Kong Sep 2015 - May 2019
Major: Computer Science, Minor: Mathematics, First Class Honours, GPA: 3.6/4.3

National University of Singapore, Singapore Jan 2018 - May 2018
Faculty Exchange Program, GPA: 4.75/5

University of California Berkeley, Berkeley, CA, United States Jun 2016 - Aug 2016
Summer Session (Computer Science)

Awards

Second Runner-up, hackUST 2017 Radica Challenge, HKUST Apr 2017

HKU Foundation Scholarship (top 5%), The University of Hong Kong Sep 2015 - May 2019

First Prize (top 1%), Chinese Physics Olympiad Provincial Final in Jiangsu Sep 2014