Yen-Shi Wang

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EDUCATION

Carnegie Mellon University Pittsburgh, PA

Master of Science in Electrical and Computer Engineering

Dec. 2020

Current Coursework: Foundations of Computer Systems, How to Write Fast Code, Cloud Computing

National Taiwan University

Taipei, Taiwan Jan. 2019

Bachelor of Science in Computer Science and Information Engineering, GPA: 3.85/4.0 Bachelor of Science in Electrical Engineering, GPA: 3.85/4.0

Jan. 2019

Coursework: Algorithm Design and Analysis, Deep Learning, System Programming, Operating Systems, Multimedia Analysis

EXPERIENCE

Taipei, Taiwan Skymizer

C++ Developer

Apr. 2019 - Jul. 2019

- Rewrote 21 optimizations in Open Neural Network Exchange (ONNX), ported into Open Neural Network Compiler (ONNC).
- Initiated quantization flow in ONNC backend to perform 8-Bit quantization for NVIDIA Deep Learning Accelerator (NVDLA).
- Experienced in NVDLA hardware structure, machine learning operators, ONNX/ONNC IR, and hardware-IR relation.
- Introduced per-channel symmetric quantization, resulted mean square error is hundreds times smaller than per-layer method.

BravoAI Co., Ltd. Taipei, Taiwan

Software Engineer

Mar. 2018 - Sep. 2018

- Developed a system using Pytorch and Tensorflow to convert fields on medical certificate from paper into electronic forms.
- Integrated machine learning to deal with text detection, optical character recognition, and multi-label classification problems.
- Deployed entire system with four Docker containers running Flask web service, operating at a speed of 0.5 image/sec.
- Obtained per-character accuracy of over 95% and sold to two biggest insurance companies in Taiwan.

WorldQuant, LLC Taipei, Taiwan

Quantitative Research Intern & Consultant

Jul. 2017 - Mar. 2018

- Created models from financial data to predict movement of stock markets, achieved highest Websim score among six interns.
- Earned GOLD certificate on Websim and continued to work as a consultant, ranked 3rd among all Taiwanese consultants.

National Taiwan University

Taipei, Taiwan

Teaching Assistant — Signals and Systems Course

Feb. 2017 - Jun. 2017

Experimental Assistant — Switching Circuit and Logic Design Course

Sep. 2016 - Jan. 2017

SKILLS

Programming Languages C++, C, Java, Python, Bash, Javascript

> **Tools and Others** Linux/UNIX, Git, GDB, Make, Docker, Pytorch, Tensorflow, Node.js, React, AWS

PROJECTS

Sokoban solver (assignment in Theory of Computer Games)

Oct. 2018 - Dec. 2018

- Utilized tools such as GProf, GDB and Git during development of programs.
- Analyzed number of visited states with different algorithms (Ex. BFS, DFS, A Star, and DFID).
- Combined bi-directional BFS with constraints to prune search space and ranked within top 10 solvers in class.

Mail Service (final project in Network Administration and System Administration)

May 2017 - Jun. 2017

- · Configured Web mail, DNS, Cisco routers, VLANs, account management, LVM and firewall in Linux environment.
- Established a mail service with LDAP (account database), Postfix (mail server) and Dovecot (storage server) in a team of three.
- Leveraged Ansible to deploy entire service by one click, got highest final score among class.

Honors

2018 **Rank 116**, Google Code Jam 2018, Round 1C

2017 Silver Medal, ACM-ICPC Asia Hua-Lien Regional Contest

Hua-Lien, Taiwan Taipei, Taiwan

2017 Third Prize, National Collegiate Programming Contest 2017

2013 **Silver Medal**, 54th International Mathematical Olympiad (IMO)

Santa Marta, Colombia