

# Yen-Shi Wang

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## Education

<b>Carnegie Mellon University</b>	Pittsburgh, PA
Master of Science in Electrical and Computer Engineering	Dec. 2020
<b>Current Coursework:</b> Foundations of Computer Systems, How to Write Fast Code, Cloud Computing	
<b>National Taiwan University</b>	Taipei, Taiwan
Bachelor of Science in Computer Science & Information Engineering, GPA: 3.85/4.0	Jan. 2019
Bachelor of Science in Electrical Engineering, GPA: 3.85/4.0	Jan. 2019
<b>Coursework:</b> Algorithm Design & Analysis, System Programming, Operating Systems, Deep Learning, Multimedia Analysis	

## Experience

<b>Skymizer</b>	Taipei, Taiwan
C++ Developer	Apr. 2019 - Jul. 2019
<ul style="list-style-type: none"><li>Implemented 21 optimization and legalization passes on Open Neural Network Compiler (ONNC) in C++.</li><li>Wrote software design documents, participated in weekly code review, and created unit tests for 21 passes.</li><li>Initiated quantization flow in ONNC backend to perform 8-Bit quantization for NVIDIA Deep Learning Accelerator (NVDLA).</li><li>Introduced per-channel symmetric quantization, resulted mean square error is hundreds times smaller than per-layer method.</li></ul>	
<b>BravoAI Co., Ltd.</b>	Taipei, Taiwan
Software Engineer	Mar. 2018 - Sep. 2018
<ul style="list-style-type: none"><li>Developed a system in Python to convert fields on medical certificate from paper into electronic forms to reduce labor costs.</li><li>Integrated machine learning to deal with text detection, optical character recognition, and multi-label classification problems.</li><li>Deployed entire system with four Docker containers running microservices, operating at a speed of 0.5 image/sec.</li><li>Obtained per-character accuracy of over 95% and sold to two biggest insurance companies in Taiwan.</li></ul>	
<b>WorldQuant, LLC</b>	Taipei, Taiwan
Quantitative Research Intern & Consultant	Jul. 2017 - Mar. 2018
<ul style="list-style-type: none"><li>Created models from financial data to predict movement of stock markets, achieved highest Websim score among six interns.</li><li>Earned GOLD certificate on Websim and continued to work as a consultant, ranked 3rd among all Taiwanese consultants.</li></ul>	

## Skills

<b>Programming Languages</b>	Advanced- C++; Intermediate- Python, C, Bash; Basic- Java, Javascript and Verilog
<b>Tools and Others</b>	Linux/UNIX, Git, GDB, Docker, Vim, Pytorch

## Projects

<b>Sokoban solver (assignment in Theory of Computer Games)</b>	Oct. 2018 - Dec. 2018
<ul style="list-style-type: none"><li>Utilized tools such as GProf, GDB and Git during development of programs.</li><li>Analyzed number of visited states with different algorithms (Ex. BFS, DFS, A Star, and DFID).</li><li>Combined bi-directional BFS with constraints to prune search space and ranked within top 10 solvers in class.</li></ul>	
<b>Content-Based Image Retrieval (project in Multimedia Analysis and Indexing)</b>	Nov. 2017 - Dec. 2017
<ul style="list-style-type: none"><li>Built a search engine to retrieve images with similar features from database according to query image.</li><li>Compared features such as color, texture, and fusion of both, found a trade-off between size of feature and precision.</li></ul>	
<b>Mail Service (final project in Network Administration and System Administration)</b>	May 2017 - Jun. 2017
<ul style="list-style-type: none"><li>Gained hands-on experience in configuration of Web mail, DNS, routers, Linux account management, IVM and firewall.</li><li>Established a mail service with LDAP (account database), Postfix (mail server) and Dovecot (storage server) in a team of three.</li><li>Leveraged Ansible to deploy entire service by one click, got highest final score among class.</li></ul>	

## Honors

2018 <b>Rank 116</b> , Google Code Jam 2018, Round 1C	
2017 <b>Silver Medal</b> , ACM-ICPC Asia Hua-Lien Regional Contest	Hua-Lien, Taiwan
2017 <b>Third Prize</b> , National Collegiate Programming Contest 2017	Taipei, Taiwan
2017 <b>College Student Research Scholarship</b> , National Science Council	Taiwan
2016 <b>Dean's List</b> , Department of Electrical Engineering	Taipei, Taiwan
2013 <b>Silver Medal</b> , 54th International Mathematical Olympiad (IMO)	Santa Marta, Colombia