

WAI SING CHING

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Permanent Address
5D Wisteria Mansion, Tai Koo Shing
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Education

Carnegie Mellon University, Pittsburgh, PA May 2019
- Integrated M.S./B.S. Degree
- Major in Electrical and Computer Engineering
- Minor in Politics and Public Policy
- Minor in Music Technology
- Intended Minor in Computer Science
- GPA: 3.90/4.00; Dean's List

Research

Undergrad. Researcher (Paid) April 2017 - August 2017
- Worked with Prof. Jelena Kovačević, Head of ECE, and Ph.D. student Varma Rohan.
- Worked on uncertainty principles for signals on graphs.

10-704 Term Project Sep 2016 - Dec 2016
- Proved that layers of sigmoid neurons can be trained and evaluated under quantization with guaranteed correctness and convergence, with a few assumptions.
- Working towards a paper publication.

Queuing Time at Eye Centre Jul 2013 - Aug 2013
- Surveyed the queuing time at stations in Eye Centre in Prince of Wales Hospital, the largest ophthalmological center in Hong Kong, and proposed methods to reduce the overall waiting time.
- Ran Monte Carlo simulations based on collected statistics to evaluate the effectiveness of said methods.
- Invited to return the next year.

Skills

- ES6(JS)/React/Redux/Polymer/Node, CSS4, GraphQL
- C, Go, Python, MATLAB, C#
- SML, OCaml
- Octave, NLTK, Caffe, CUDA, OpenCV
- SPSS, R, Python for data visualization
- SystemVerilog, TINA-TI
- Adobe Creative Suite
- SketchUp, Grasshopper

Relevant Coursework

10-704 Information Processing and Learning *
08-735 Building User-Focused Sensing Systems *^
15-418 Parallel Computer Architecture & Programming ^
18-491 Fundamentals of Signal Processing
18-349 Embedded System Design ^
15-210 Parallel Data Structures and Algorithms
* Graduate course ^ Spring 2018

Experiences

Autonomous Underwater Vehicle Jan 2017 - May 2017
- Built an autonomous submarine with an array of ultrasonic sensor, with a Venezuelan mechanical engineer.
- Ran reinforcement learning algo. with limited resources.

WMATA Strategic Initiative Grp. Oct 2017 - Dec 2017
- Automating data ETL and report generation processes.
- Streamlining workflows in a data-driven approach.

UBTECH Robotics Intern (Paid) Dec 2017 - Jan 2018

Automatic Slideshow Generation Oct 2015 - Aug 2017
- Developed a web app that transforms textual inputs to an organized presentation, with a Korean UX designer.
- Created ML models, UI components, and file sync. algo.

Noise-cancelling Headphones Feb 2017 - Present
- Developing two BLE+WiFi systems featuring real-time noise-cancellation, with a Hong Kong product designer.

Activities

FORGE Sep 2015 - Apr 2016
- Made weekly visits to a Nepali refugee family.

Fencing Club Sep 2015 - Present
- Partook in west-PA-wide college level tournaments.

All-University Orchestra Jan 2016 - Apr 2016
- Performed in Spring Concert as a clarinetist.