

# Allen Houze Wang

[allen.houze.wang@gmail.com](mailto:allen.houze.wang@gmail.com) | [allenhw.xyz](http://allenhw.xyz)

## EDUCATION

### University of Waterloo

*Master of Mathematics, Computer Science (Thesis)*

09/2018 -

- Machine Learning

*Bachelor of Mathematics (Co-op)*

09/2013 - 04/2018

Double Major: Computer Science, Combinatorics & Optimization; Minor: Cognitive Science

- Co-op program includes 6 internships
- 3rd and 4th years average: 94/100
- Selected Coursework:
  - ML Theory, Advanced Algorithms, OS, Game Theory, Graph Theory, Group Theory, Analysis, Optimization, Robotics Control, Quantum Information, Neuroscience
- Activities: Engineering Society, Student Council

## WORK EXPERIENCE

### SWE Intern @ Facebook

Menlo Park CA 05/2018 – 07/2018

- Trained multi-task neural networks to predict users' preferred product categories on Marketplace; data pipeline, model optimization and feature engineering
- Implemented an end-to-end flow to tune and export predictions for 1 billion users
- Work showed +30% in offline F1 scores and was carried on by a research scientist

### SWE Intern @ LinkedIn

Sunnyvale, CA 01/2017 – 04/2017

- On the database group behind the Economic Graph project
- Built an OS-level tool to simulate concurrent processes of the database internal using signal handling, instruction decoding, process forking, etc in C/C++

### Data Science Intern @ Wish

San Francisco, CA 05/2016 – 08/2016

- Wish was an e-commerce startup valued at \$3B with ~40 engineers at the time.
- Designed and deployed score-based product recommendation algorithms.
- New algorithm was A/B tested and estimated to increase sales (GMV) by \$40 million/year
- Worked with growth engineer on user retention analysis

### Full Stack Intern @ PiinPoint

Waterloo, ON 09/2015 – 12/2015

- Worked as a core engineer at the location analytics startup (Y-Combinator 14)
- Pushed projects from UX design, full implementation and to client meetings

### SWE Intern @ Minted

San Francisco, CA 01/2015 – 04/2015

- Took part in rebuilding the web platform used by independent artists
- Implemented an instrumentation tool to track user actions on the site

## RESEARCH EXPERIENCE

### Undergraduate Research Assistant

Waterloo, ON 06/2017 - 01/2018

- Computational Neuroscience: investigated methods to efficiently emulate the output of neuron populations
- Machine Learning (part-time): made theoretical analysis of convex optimization algorithms

## PROGRAMMING SKILLS

Languages: Python, C/C++, SQL, Java, JavaScript, HTML/CSS

Tools: NumPy, PyTorch, TensorFlow, Hadoop, Linux, Flask, React.js

## AWARDS

- David R. Cheriton Graduate Scholarship (2018)
- Undergraduate Math Dean's Honours List (first class honours) (2018)
- NSERC Undergraduate Research Award (2017)
- HackPrinceton Microsoft Prize (2015)

## BIO

- Born in China, moved to Japan at 6 and to Canada at 14
- Native-level speaking in English, Japanese and Mandarin; writing in English and Japanese

## INTERESTS

- Table Tennis; competed in the U15 group at provincial level with players who later joined the Canadian National Team.
- Social Sciences, Pure Mathematics, Physics, Biology, Philosophy (I dabble but am not expert in any)