

# Jerry Hou

[jerry.hou@uwaterloo.ca](mailto:jerry.hou@uwaterloo.ca) | 647-471-1297 | [LinkedIn](#) | [Github](#) | [Portfolio Website](#)

## SKILLS & ABOUT ME

**Languages:** JavaScript, Python, Java, C, C++, SQL, Swift, Bash, Racket

**Technology:** NodeJS, React, JQuery, Git, Tensorflow, Numpy, Pandas, Matplotlib, MongoDB, Linux, Firebase, Postman, Sketch

**Hobbies & Interest:** Machine Learning, Finance, Competitive Programming, Chess

## WORK EXPERIENCE

### REKAMMEND | SOFTWARE ENGINEER INTERN

Remote | May 2021 – Aug 2021

- Designed and implemented APIs to track users' usage patterns and provides relevant in-app suggestions.
- Optimized machine learning model and added support for numpy input, storage and extraction, reducing model compile time by 54%, improving model response time by 56% and increasing recommendation click-rate by 12%.
- Designed and implemented data analytic dashboards using Python and Pandas to visualize user preferences, usage patterns and metrics data stored on MongoDB.
- Iterated designs for iOS mobile app interface using Sketch. Designed trial studies and conducted interviews to obtain feedback and suggestions from target audience; incorporated into final design.
- Designed and implemented backend APIs for user data storage, retrieval and data collection from remote database.
- Developed, tested and deployed native iOS mobile apps written in Swift. Connected backend APIs and implemented final app design using SwiftUI.

### DUOWEI EDUCATION | TEACHING ASSISTANT

Richmond Hill, ON | Nov 2019 - March 2020

- Taught mathematics concepts and CS algorithms and data structures such as BST, BFS, sorting methods to high school students ranging from grade 9 to 11.
- Students have gone on to score 90+ percentiles in the Canadian Computing Competition (CCC) and Waterloo's Euclid Math Contest.

## PROJECTS

### UWFLOW++

JAVASCRIPT, HTML, CSS, JQUERY

- Built Chrome extension to quickly preview a UWaterloo course's UWFlow ratings by hovering over course listing.
- Currently published on [Chrome Extension Store](#)

### NEXT WORD PREDICTOR

PYTHON, TENSORFLOW, PANDAS, NUMPY, MATPLOTLIB

- Categorization machine learning model that predicts the next word from a given text.
- Predicts word with 15%+ accuracy out of 9000+ potential output in training.

### IMAGE REPOSITORY

REACT, JAVASCRIPT, FIREBASE, HTML, CSS

- Image repository webapp that allows users to upload their images and search them via keywords or descriptions.

## AWARDS & HONOURS

### TD CYBER SECURITY LIVE CASE | SEMI FINALIST

Waterloo, ON | Nov 2020

- Designed and pitched an enhanced multi-factor authentication experience with a technical demo to TD bank, with the aim of better protecting its clients from potential frauds.

### 2019 CANADIAN COMPUTING COMPETITION | CERTIFICATE OF DISTINCTION

Waterloo, ON | Feb 2019

### 2019 EUCLID MATH CONTEST | CERTIFICATE OF DISTINCTION

Waterloo, ON | April 2019

## EDUCATION

### University of Waterloo

Waterloo, ON | 2020 - 2025

BMATH. MATHEMATICS, 2A TERM - EXCELLENT STANDING