

SIMHON CHOURASIA
UNIVERSITY OF WATERLOO
COMPUTER SCIENCE

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LANGUAGES AND TECHNOLOGIES

- Python, JavaScript, Java, HTML, CSS, SQL, Scheme
- React, Node, MongoDB, Express, Git, JSON, APIs, MS Office Suite
- Data science, machine learning with TensorFlow, scikit-learn, Matplotlib, Seaborn, NumPy, pandas

EXPERIENCE

Data Science Researcher | Ryerson University

June 2019 – September 2019

- Cleaned large datasets, visualized data, and performed **data mining** with **NumPy**, **pandas**, **Matplotlib** and **Seaborn**
- Created predictive machine learning models with **Python** using the **scikit-learn** library (neural network, SVM)
- Researched the effects of team dynamics on university group project performance

Teaching Assistant | Kumon

May 2019 – March 2020

- Graded classwork and homework as a part-time teaching assistant at a Kumon Math & Reading center in Toronto
- Guided high school students through course material, including **calculus**, **statistics**, and **geometry**

PROJECTS

(PROJECT CODE AT [GITHUB.COM/SIMHONCHOURASIA](https://github.com/simhonchourasia))

1) FoodFinder ([GitHub](#))

- Developed a web application using the **MERN stack** to help people decide where to eat by swiping on restaurants
- Scrapes data for nearby restaurants using the Yelp API and stores information in a **MongoDB** database
- Created responsive, mobile-friendly frontend using **React Hooks**, and used **Express/Node** to make **API** calls

2) Investment Portfolio Display ([GitHub](#))

- Web application created using **Python** and Streamlit to display an investment portfolio in real time
- Used WealthSimple API to retrieve stock positions, Yahoo Finance API to find stock price history, and **pandas** to accumulate information and graphically display portfolio value

3) UIO: Expense Tracker ([GitHub](#))

- Created a web-based application using the **MERN stack** to allow easy account creation and money tracking
- Made the frontend with **React** and **Redux**, and used **Express** and **Node** to connect to **MongoDB** server
- Implemented **JWT authentication** to let users securely register and log in

4) Card Game Hand Analyzer ([GitHub](#))

- Developed a web application using **React**, **CSS**, and **JavaScript** to assist with card games
- Applied combinatorial principles to develop algorithm to find all possible poker hands from a selection of cards

5) TFuse: Tweet Sentiment Analyzer ([GitHub](#))

- Natural language processing model with **TensorFlow** and Google's Universal Sentence Encoder in **Python** to perform sentiment analysis on a dataset of **1 million** tweets
- Overall **second place winner** at Ignition Hacks 2020, out of 62 projects

ADDITIONAL EXPERIENCES AND AWARDS

- **Quantum Cryptography School for Young Students (2020)**: Invited to online series of seminars and problem-solving sessions involving linear algebra, **statistics**, **algorithms**, and quantum cryptography hosted by the University of Waterloo's Institute for Quantum Computing
- **Math Competitions (2019, 2020)**: Top rankings in Canadian Open Mathematics Challenge (top **1%**), American Invitational Mathematics Exam (top **5%**), Euclid (top **0.7%**)
- **SHAD Fellow (2018)**: Engaged in STEM lectures and activities at SHAD McMaster University
- **Scholarships**: Presidential Scholarship of Distinction, Math Faculty Scholarship, TD Achieve the Dream Canada

EDUCATION

University of Waterloo

September 2020 – May 2025

- Candidate for Bachelor of Mathematics – Honours Computer Science with Co-op program
- Enrolled in selective **advanced courses**, including Advanced Functional Programs, Advanced Algebra, and Advanced Calculus 1 (CS145, MATH145, MATH147, CS146, MATH146, MATH148, and STAT230)
- **GPA: 4.0** (95.4% cumulative) (97% core)