

Julia L. Wang

☎ 408-854-0152 ✉ juliaalong.wang@mail.utoronto.ca 💻 [julia-long-wang](https://julia-long-wang.github.io) 🌐 github.com/JuliaLWang8 🌐 julia-wang.dev

EDUCATION

University of Toronto

Expected: June 2024

BS in Computer Engineering, Major in Machine Learning, Minor in Engineering Business

- CGPA: 3.71 | Relevant Courses: Databases, Software Engineering, Data Structures, Algorithms, OS, AI, ML, IR
- Recipient of the Jeffrey Skoll Scholarship, Dean's Merit Award, Prof. Cohen Scholarship, and Pesando Scholarship

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, HTML/CSS, SQL, C, Verilog, R, MATLAB, Flutter, ARM Assembly

Technologies: React.js, PostgreSQL, Object-Oriented Programming, PyTorch, Pandas, TensorFlow, Flask, Arduino

EXPERIENCE

Software Engineer Intern

May 2022 - May 2023

Intel

San Jose, CA, USA

- Agile full-stack development in **C++** for Quartus Prime FPGA design software's Signal Tap logic analyzer.
- Engineered clock tracing APIs for **Verilog** designs, achieving a 10s acceleration for designs with 60,000+ elements.
- Test-driven development to automate processes including signal matching and encrypted IP black-box creation.
- Implemented user-facing GUI features from direct client requests, resulting in a 2x increase in efficiency.
- Hosted weekly events for 25+ interns and discussed ethical AI as a speaker at the 2022 AI Global Impact Festival.

Software Developer Intern

Sep. 2020 - Jun. 2021

Dataraction Inc.

Toronto, ON, Canada

- Created front-end mobile features in **Flutter** integrating RESTful APIs for a career-centric mobile platform.
- Designed a **PostgreSQL**-driven business intelligence interface and a robust AI chatbot with **IBM Watson**.

RESEARCH & PROJECTS

Undergraduate Thesis on Financial Data Privacy | *Python, TensorFlow*

Sep. 2023 - Present

- Partnered with RBC to research **GANs** and **auto-encoders** for privacy-preserving synthetic data generation.

Covalent Reactivity of Serine Active Sites Capstone | *CNNs, Python, PyTorch*

Sep. 2023 - Dec. 2023

- Researching **XGBoost**, **3DCNN**, and **Deep CNNs** to predict reactive sites for drug design optimization.

Events Hub Web Application | *GitHub | React, Flask, PostgreSQL, CSS*

Sep. 2023 - Nov. 2023

- Developed and deployed an events hub web application using **React**, **Flask**, **PostgreSQL**, and **CSS**, implementing a robust CI/CD flow and automated unit, regression, and load testing for seamless deployment and reliability.

RL Agents for Pokémon Battling | *GitHub | RL, DQN, Python, Keras*

Mar. 2022 - Apr. 2022

- Created Reinforcement Learning (**RL**) agents trained with a Deep Q-Network (**DQN**) using **Keras** in **Python**.

OPEN-SOURCE & HACKATHONS

yfinance PyPI Package Data Features | *PyPI | GitHub | Python*

Nov. 2023 - Dec. 2023

- Added data retrieval features and bugfixes to yfinance, a package that downloads market data with over 11k stars.

Product Recommender System | *GitHub | sBERT, GCN, Python, PyTorch, Pandas*

Jan. 2023

- Participated in a team of three to achieve 3rd place in the 2023 Daisy Intelligence AI Hackathon.
- Developed a **Python**-based recommender system using **sBERT** and a Graph Convolutional Network (**GCN**).

Fairness in Predicting Recidivism | *GitHub | NAS, RNN, RL, Python, PyTorch, NumPy*

Oct. 2022

- Achieved 1st place in the 2022 MLH AIHacks4Good Hackathon through presentations to key stakeholders.
- Implemented a Neural Architecture Search model (**NAS**) with **RL** and a Recurrent Neural Network (**RNN**).
- Accomplished a 3.5x improvement in counterfactual fairness metrics while increasing accuracy by 2%.

DotsLogistics Solutions | *GitHub | React, CSS, Python*

Jan. 2021 - Apr. 2021

- Led a team to win 2nd place in the 2021 Agorize AI for Business Competition, surpassing 302 competitors.
- Designed and pitched a complete business model, developing a prototype using **React** and a recommender system.