

Jiafeng (Jayden) Yu

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TECHNICAL SKILLS

Languages: Python, C/C++, Rust, Lisp, Bash, Lua, JavaScript, HTML/CSS, KDB/SQL, Java, MIPS/ARM, R
Tools: PyTorch, TensorFlow, NumPy, Pandas, Git, Arch Linux, FreeBSD, Vim, LLVM, AWS, Node.js, Vue.js
Interested in: OCaml, Automated Theorem Proving, Quantum Computing, Pen.Testing, Gentoo/BlackArch Linux
Communication: English, French, Mandarin Chinese, Spanish

EXPERIENCE

Ledn Inc

Toronto, ON

Quantitative Developer Intern | Rust, Python

Sept 2022 - Dec 2022

- Designed, engineered, and implemented from scratch a **Rust** based multi-threaded market data consolidator to decrease processing latency **by over 50%** when compared to a FOSS Python model.
- Engineered the design and implementation of a **ML** quant trading product in **Python** and **Rust**, through researching various limit order models, efficient documentation, and code reviews
- Fine-tuned crypto market data to produce supervised learning datasets using **KDB** and **SQL**
- Managed an **AWS EC2** instance to source, store, and update modeling data and host a KX Dev environment
- Researched, implemented, and performance tested **LSTM** and **CNN** models in **PyTorch** for price prediction

University of Waterloo

Waterloo, ON

Undergraduate Research Assistant | C

Jan 2023 - May 2023

- Researched **FreeBSD kernel** performance optimization using **static** and **dynamic analysis**
- Decompiled binaries to minimize cache misses by automating **code refactoring** using Ghidra
- Implemented the testing framework and **performance tested** HHVM, DaCapo, and Renaissance applications
- Read, summarized, and presented various academic and industry systems **research papers**

Ford Motor Company

Waterloo, ON

Software Engineer Intern | Python, JavaScript

Jan 2022 - April 2022

- Implemented the **Full Stack Development** of a performance metrics website in **JavaScript**
- Engineered **Python** scripts to automate updates to the **data processing pipeline** via JSON file management

SS&C Technologies

Toronto, ON

Full Stack Developer Intern | Java, JavaScript

May 2021 - Sept 2021

- Implemented modules of a **Java** based **Selenium** webpage testing framework from scratch
- Designed and implemented **frontend** components of a revamped legacy product using **Vue.js**

EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Mathematics in Honours Computer Science, minor in Pure Mathematics

Sep 2020 - May 2025E

- Relevant Coursework:** ML, AI, Computer Vision, Algorithms, Data Structures, OS, OOP, Numerical Computation, Compiler Construction, Formal Methods, Computer Architecture, Abstract Algebra, Real Analysis

COMMUNITY

University of Waterloo Computer Science Club

Waterloo, ON

Systems Administrator

Mar 2023 - Aug 2023

- Managed CS Club services and helped maintained uWaterloo's tier 1 **Arch Linux** mirrors
- Helped allocate server space and host websites for other student clubs

PROJECTS

Immune System Invaders | *JavaScript, HTML, CSS*

Mar 2020

Created a web based implementation of the Space Invaders game with a COVID-19 twist in standard **JavaScript, HTML, CSS** with **OOP** principles, scalability, and maintainability in mind