

Jackie Liu • 刘嘉伟

📞 +1 (971) 344-9782 ✉ jackie@liujjw.xyz 🔗 <https://liujjw.xyz>

EDUCATION *Cornell University* (expected) Aug 2019-May 2024
(expected) B.A. Computer Science

- Coursework: Algorithms, OS, Databases, Programming languages, Machine learning
- Activities and organizations: eSports, IB finance, Cornell Blockchain

WORK EXPERIENCE *Retail Business Services, Ahold Delhaize* January-June 2023
Software Engineer Co-op

- Deliver full stack web solutions for retail partners with omnichannel strategy across technology platforms

Nethermind April-May 2021
Software Engineer Intern, MEV Research

- Integrated technical specifications in production C# codebase (Flashbots v0.1 in Nethermind Ethereum client) and aided in white-hat security efforts (cross-chain token recovery)
- Collaborated with seminal blockchain organizations and cross-functional teams in events (Flashbots MEV infrastructure in Eth2 for ScalingEthereum)

OTHER EXPERIENCE *Undergraduate researcher* Oct 2022

- Architect [Rust operating system](#) targeting AArch64 ISA, without a traditional C or C++ runtime
- Advised by Professor Robbert van Renesse

FTC Robotics, Lead programmer, autonomous control May 2018

- Spearheaded team of programmers working on Android mobile app for manual control and sensor integration, won local competitions

SKILL STACK **Common:** Proficient in Python, Javascript/Node.js, Solidity; some experience with Rust, Go, C, C#, OCaml, Java, Typescript
Tools: Linux, WSL, AWS, git, LaTeX, Docker
Web: HTML, CSS, Twelve-Factor and CRUD Apps
Web3: web3.js, ethers.js, Geth, Erigon, Foundry, DeFi, HardHat, Onchain analysis
Correctness: Some experience with K
ML: numpy, scikit-learn, Jupyter

SELECT PET PROJECTS [MEV arbitrage bot](#)

- Automated services for investigating and executing margin calls (on-chain lending pool liquidations)
- Orchestrated a multitude of technology stacks from core web services to DevOps integration to web3 platforms and APIs

[Risk markets protocol](#)

- Designed blockchain protocol and interface for trading by taking positions in token markets
- Drafted full design from web3 business logic to React UI/UX to investigated security vulnerabilities based on existing top TVL protocols

[TinySol language formalization](#)

- Created programming language (provable executable semantics) for a core subset of the Solidity language
- Leveraged K framework definitions for stack-based virtual machine