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EDUCATION	*Cornell University*	Dec 2023

B.A. Computer Science
- Breadth track with math specialization
- Select coursework: Algorithms, OS, Networks, Databases, Programming languages, Networks, Machine learning
- Activities and organizations: Association of Computer Science Undergraduates, eSports, Film, Shogi

WORK EXPERIENCE	*Nethermind*	May 2021

Software Engineer Intern, MEV Research
- Flashbots v0.1 in Nethermind C# Ethereum client
- Private cross-chain token recovery with Flashbots
- MEV infrastructure in Eth2 for ScalingEthereum

OTHER EXPERIENCE	*Aave Wasabi @ Cornell eHub*	Feb 2021

Founder
- Early stage stage development of a DeFi protocol

FTC Robotics — May 2019

Lead programmer, Autonomous control
- Manage small team of programmers working on an Android mobile app for computer vision and sensor integration

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: React, HTML, CSS, Bootstrap, Twelve-Factor Apps, RESTful APIs
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 bot
- Distributed objects/microservices for monitoring and executing pure revenue opportunities such as liquidations for lending pools
- Express, Redis, Bull JQ, clusters and workers, GraphQL, Docker, AWS, Erigon, Foundry, flash loans and swaps, price feeds

Risk markets protocol
- Protocol and interface for exchanging risk and taking directional positions in token markets, e.g. hedging leverage spirals and going long
- React and Bootstrap CSS interface, liquidity and external yields from lending pools

Language formalization
- Executable semantics for a core subset of Solidity
- Definitions using the K framework