Severyn Kozak

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SKILLS

Languages	C++, Python, C, Haskell, Go, x86, Java, Javascript
Tools	AWS, Linux, Docker, Kubernetes, Git, PostgreSQL, Nginx, MongoDB, Node.js
Experience	algorithmic trading, HPC, operating systems, various math, distributed systems, security, crypto, compilers, graphics, machine learning, AI, inference, web

EXPERIENCE

Software Engineer at Ansatz Capital (NYC) *Sep 2020 - now*

Quantitative development and high-performance software engineering for worldwide equities/futures/crypto HFT. Productionizing/optimizing/improving strategies, signal/feature exploration and implementation, new market expansion, bleeding-edge C++ optimization, research library development, compute cluster/infrastructure development and management, trading monitoring and operations, strategy/infrastructure/hardware deployments and upgrades.

Freelance Software Developer, self-employed (remote) *summer 2020*

Developed a web-security API for domain owners to analyze the threat level of typo'd domains. Developed a name website that combines public name datasets with multilingual translations, machine-learned ethnic breakdowns, suggestions for similar names, and more.

Trading/Engineering Intern at Tsuru Capital (Tokyo) *summer 2019*

Algorithmic options market-making on the KRX in a prop-shop setting. Solved problems across our stack, in trading strategies, simulation, viewers, and infrastructure.

Systems Engineering Intern at Tower Research Capital (NYC) *summer 2018*

Worked on core trading infrastructure. Improved the performance of order placement in strategies with sparse order patterns. Dealt with large C++ codebases, low-level optimization, and rigorous performance testing.

Software Engineering Intern at Cryptosense (Paris) *summer 2017*

Worked on software that automatically identifies cryptographic vulnerabilities in Java software. Automated our product for CI integration, writing backend APIs and build-system plugins. Researched how to map Java crypto-provider versions to their known vulnerabilities.

Software Engineering Intern at MongoDB (NYC) *summer 2016*

Worked on performance regression testing at MongoDB. Improved our test analysis, which identifies performance regressions based on diagnostic data from stress tests (resource usage, throughput, etc.)

Software Engineering Intern at Mapzen (NYC) *Jul 2014 - Jun 2015*

Interned at Mapzen, an open-source and open-data geographic software startup, during my gap year. Worked on our Node.js/Elasticsearch-based geocoder, Pelias, as well our high-volume map vector tile service's PostgreSQL, Python, and AWS infrastructure.

EDUCATION

MIT M. Eng. in Computer Systems 2019-'20
- TA for 6.172 Performance Engineering
- Ultra-low performance variability research with the Supertech group (thesis, 2nd place CS award)

MIT B.S. in Computer Science, Minor in Mathematics 2015-'19
- Varsity Lightweight Rowing (4 years)
- Parallel Computing research on the Cilk platform with the Supertech group

Stuyvesant High School 2010-'14