AARON KRIEGMAN

Software Engineer and Mathematician

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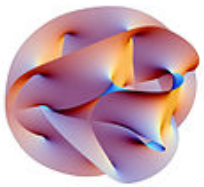

EXPERIENCE

Software Engineering Intern
Symbolic Capital Partners

June 2022 - September 2022 remote

- Worked **independently** on **critical company infrastructure** in **Rust** with Tokio, Warp, Ethers, PostgreSQL, Prometheus, and Serde.

Software Engineering Intern
DreamsAI

July 2021 - September 2021 Cambridge, UK

- Worked on a cryptocurrency fintech service. Used technologies including PostgreSQL, Express.js, Jest, React, and more.

Research Experience for Undergraduates
Texas A&M University

June 2019 - Aug 2019 College Station, TX

PROJECTS

Metrica
A building game in non-Euclidean geometry made in Unity with GlmSharp, with my own graphics shaders and physics implementation using quaternions. Check it out on YouTube.

Wave Simulation
An interactive simulation of the wave equation in C++ using convolutions and FFTs from the Eigen Tensor module, with SFML. Check it out on GitHub for pictures.

Liquid Go
A game based on Liquid Wars and Go, made with React.js and Rust using Wasm-Bindgen, WebRTC, Socket.IO, R*-trees, and more. Play it at liquidgo.xyz.

Check out my GitHub to see more projects with pictures.

COURSEWORK & GRADES

Interactive Computer Graphics 4.0
- Using OpenGL in C++ with Qt
- Graduate course at University of Pennsylvania

Computer Organization 4.0
- Created a working CPU in Logisim for my final project

Computational Geometry 3.7

Information Theory and Data Science 4.0

Analysis of Algorithms 4.0
- With data structures as a prerequisite

Lie Groups and Representation Theory 4.0
- Graduate course at University of Pennsylvania

Mathematical Economics 4.0

LANGUAGES

Rust: Tokio, Wasm, Warp, Ethers

C++: OpenGL, Eigen Tensors, Qt, SFML

Python: Numpy, Scipy, Pandas, Sage

Bash: binutils, cURL, Systemd

Javascript: WebRTC, React, Socket.IO, Express

Julia: ForwardDiff, Symbolics

EDUCATION

BA. in Mathematics (in progress)
University of Cambridge

Oct 2020 – June 2023

Haverford College

Sept 2018 – June 2020

Studied mathematics and computer science at Haverford for two years then transferred to Cambridge.

MOST PROUD OF

USA Mathematics Olympiad
Qualified twice in 2017 and 2018.

Putnam Mathematics Competition Top 500
Came in top 500 in the US's premier college mathematics competition twice, in 2018 and 2019.

MY PLANS

Currently studying mathematics at Cambridge University. I plan to get a PhD. I may take a year or two out to work first.

PUBLICATIONS

Journal Articles
- Asimina Hamakiotes, Aaron Kriegman and Wei-Lun Tsai (2019). "Asymptotic Distribution of the Partition Crank". In: *The Ramanujan Journal*.