Christopher **Gregorian**

📱 226 280 0284 | ✉ csgregor@uwaterloo.ca | 🏠 csgregorian.com | 💾 csgregorian

Skills

Go, Python, Javascript, HTML/CSS, C++, Java
Git, Linux, Bash, SQL/NoSQL, Unity, SFML

Education

University of Waterloo
Candidate for a BASc. in Systems Design Engineering

Experience

Production Engineering Intern   *January 2017 - April 2017*
Shopify   *Ottawa, ON*

- Developed a highly successful DDoS mitigation method to eliminate a large percentage of requests by intelligently identifying and blocking malicious traffic on the load balancers.
- Implemented a highly concurrent system in Go to process millions of requests per minute in real-time and perform multi-dimensional analysis to classify traffic patterns.

Projects

PWR

Power grid management and visualization

- Applied pathfinding algorithms to route energy packets optimally between producers and consumers.
- Created data visualizations to discover inefficiencies for potential improvement by showing capacity and usage information.

Life.JS

Real-time multiplayer cellular automata

- Updated 30+ user instances simultaneously in the browser with WebSockets and Javascript.
- Optimized cell evolution algorithms to minimize bidirectional latency to <30ms and maintain game integrity between instances.

Raveforms

Microphone audio visualizer

- Extracted raw samples from a low-level audio interface with C++ and converted them to a usable datatype.
- Applied Fourier Transforms to analyze sound samples from data and display frequency and amplification information through a waveform visual.

Activities

MasseyHacks   *December 2015 - May 2016*
Organizer

- Worked with a team of 14 students over 6 months to organize Canada's first MLH-sponsored high school hackathon.
- Emceed and managed the activities and opening and closing ceremonies for over 200 attendees.

Awards & Certifications

First Place, Waterloo Engineering Programming Competition

Second Place, Ontario Engineering Programming Competition

Valedictorian, Hon. Vincent Massey Secondary School (elected from 450+ graduates)

$12 000 National Scholarship Recipient, University of Waterloo

Four-time Top Individual Speaker, Richard Peddie Debate Competition