

Christopher Gregorian

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Skills

GO, PYTHON, JAVASCRIPT, HTML/CSS, LUA, C++, JAVA
GIT, LINUX, BASH, SQL/NOSQL, CHEF, SPLUNK, KAFKA

Education

University of Waterloo

CANDIDATE FOR A B.A.Sc. IN SYSTEMS DESIGN ENGINEERING

Experience

Software Developer

January 2017—April 2017

SHOPIFY—OTTAWA, ON

- Developed an automated DDoS mitigation method to intelligently identify and block malicious traffic on NGINX load balancers, detecting and eliminating over 99% of requests in production.
- Implemented a highly concurrent system in Go to process millions of requests per minute in real-time from a Kafka cluster 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

- Implemented Conway's Game of Life in the browser using 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, to help students across Ontario and Michigan develop a passion for programming.
- 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)

Four-time Top Individual Speaker, Richard Peddie Debate Competition

\$12 000 National Scholarship Recipient, University of Waterloo

Certificate of Distinction, Top 25%, CEMC math contests throughout high school