

Goal

Continue to develop new skills while contributing to well built software with a positive social impact

Experience

- 2018–present **Co-founder, CTO, Full Stack Software Developer, Compliance Master.**
- Python (Flask, SQLAlchemy, pandas), PostgreSQL, AWS, JavaScript (React)
 - Collaborated with subject matter expert (co-founder) to design a product to allow compliance officers to quickly and easily complete common tasks
 - Personally designed and implemented as a SaaS product
 - Handled importing and analyzing stock trade and price data, over 50,000 records daily
- 2016–2018 **Back End Software Developer, Canopy Labs.**
- Python (Flask, SQLAlchemy), MySQL, AWS, JavaScript (AngularJS)
 - Created back end systems for a data driven marketing and analytics SaaS product
 - Point of contact between development team and data science/machine learning team
 - Increased record ingestion rate from less than 10/second to more than 300/second
 - Designed and implemented system used to send over 10,000 scheduled and triggered personalized emails per day
 - Secondary team lead, led knowledge sharing sessions, and won first place in company wide hack day
- 2015–2016 **Independent Game Design and Development.**
- Python, C#, Unity
 - Designed and developed a custom python game engine for rapid prototyping
 - Created many video and board game prototypes
- 2013–2015 **Lead Software Developer, Geomechanica.**
- OpenCL, C++, Python, Qt
 - Sole developer for majority of development and testing of Irazu, software for finite discrete element (FDEM) simulation
 - Implemented FDEM algorithm on the GPU using OpenCL, reducing the time to run a simulation from days to hours
 - Oversaw and assisted intern development of the Irazu GUI
- 2009–2010 **Software Developer, University of Toronto Computational Biology Lab.**
- C, OpenMP, Python
 - Developed software for combining short DNA reads into a complete genome
 - Implemented as a parallel algorithm using OpenMP achieving a 2-5 times speedup over similar software
 - Administered lab computational resources
- 2008–2009 **Software Developer, University of Toronto Citizen Lab.**
- Python, Excel
 - Developed and used software to analyze and detect internet censorship from data collected around the world

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Education

- 2010–2012 **Master of Science**, *University of Toronto*.
Specializing in Theory of Distributed Computing
Thesis: *A Pedagogical Presentation of the BG-Simulation*
Advisors: Sam Toueg and Vassos Hadzilacos
- 2005–2009 **Honours Bachelor of Science**, *University of Toronto*, 3.55 GPA, With Distinction.
Double major in Computer Science and Physics with a minor in Mathematics

Technical Skills

Languages Python (Flask, SQLAlchemy), JavaScript (React, Angular), C/C++, OpenCL, C#
Cloud AWS (Lambda, RDS, Batch, Cloudfront, Cloudwatch), Docker
Databases MySQL, PostgreSQL

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