

simon fan

developer, and creative

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EDUCATION

fall 2014 -
winter 2019

University of Waterloo

Bachelors of Computer Science, co-operative program

Relevant course topics:

Data Structures and Algorithms, Object-Oriented Programming,
Classifiers and Pattern recognition, Optimization, Computer Vision



EXPERIENCE



shopify

software engineering intern - Home platform team fall 2016 - present
rails, python, mysql, graphql, analytics.js, google analytics

- abstracted 100+ rails classes in order to unify their rendering flow, improving code reuse and reducing the number of HTML components required by 91%
- instrumented the Home feed, enabling funnel analysis on merchants' navigation patterns
- demoed a proof of concept shopping bot classifier using tensorflow at the internal hackathon, sprouting the beginnings of what is now a full time project
- proactively took additional responsibility and answered questions on the Slack channel



Investments

programmer analyst intern - Shareholder Systems team winter 2016
java, sybase, d3.js, flot.js, jquery, google analytics

- main developer on a new KPI report generator for the fund marketing team
- designed and implemented a query builder, querying across 3 databases simultaneously, streamlining coordination between the two teams and reducing overhead by more than 50%
- implemented the application's data pipeline, from batch processing scripts to architecting the database, reducing query times by 80%
- extended 15 flot.js features to incorporate d3.js features for more powerful interactivity



Metricwire
Breakthrough Research

software engineering intern - web platform team summer 2015
node.js, mongodb, express, angular.js, giftbit api

- contributed to the HIPAA compliant platform for researchers and their users
- refactored web portal's local storage bindings, 10x less data stored, 15% faster on average
- conceived and owned the front-end and back-end development of the rewards program
- designed and built a user friendly researcher portal landscape interface
- implemented and fixed various features, along with the accompanying migrate scripts



INITIATIVES



Tech Retreat

winter 2014 - present

founding organizer

- organized Canada's first annual highschool learnathon and hackathon
- coordinated logistics and sponsorships for 300 attendees



Ace Consulting Group

fall 2014 - summer 2015

associate

- prepared research deliverables for clients HearthStats and Vitameter
- organized various networking events connecting startups to ventures



Enactus Waterloo

fall 2014 - summer 2015

founding vp finance

- built the foundation for the club's accounting, sponsorship teams
- coordinated various fundraising and team bonding activities
- ranked top 16 in Canada within first few months of inauguration



SKILLS

| | | |
|------------|---------|-------------|
| python | rails | d3.js |
| java | flask | three.js |
| ruby | node.js | matplotlib |
| javascript | | |
| c++ | mysql | numpy |
| bash | mongodb | scipy |
| matlab | sybase | tensorflow |
| atom | git | photoshop |
| vim | | illustrator |



PROJECTS

Gestur

flask, video processing, neural network
interaction platform; cluster sign language
gestures in order to provide free
assistance to people with verbal disabilities
*SpartaHack: Best Use of IBM Bluemix,
Best Use of Open Source, 3rd place overall*

OpenSpace: Cassini module

OpenSpace, NASA SPICE, lua
space visualizer; recreated the Cassini
mission by parsing NASA SPICE data and
integrating it into OpenSpace
*Hayden Planetarium: the simulation was
projected onto the planetarium's dome*

watchr

node.js, android, socket.io
crisis management platform; log suspicious
sound levels using civilians' phones, in order
to trace sound origin and send personalized
evacuation routes
HackPrinceton: Most Impactful app

TechTanks

rails, redis, paper.js
educational game; built an online arena
which allows players to code tank AI and
battle other player submissions

geovibes

three.js, flask, natural language processing
news visualizer; 3D globe visualization of
batch processed journalist sentiments,
providing an overview of recent
international events

more on 