simon fan
developer and creative

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EXPERIENCE

developer intern - home platform team　　　　fall 2016 - *present*
rails, mysql, graphql, analytics.js, google analytics
- abstracted many of core's rails Active Models, exposing home as a platform agnostic api
- instrumented the home feed using analytics.js to enable funnel analysis on merchants
- built an interface for dynamic content creation, removing overhead from developers
- fixed production disruptions, and code reviewed home related pull requests
- earned the best possible score on my performance evaluation

programmer analyst intern - shareholder systems team　　winter 2016
java, sybase, d3.js, flot.js, jquery, google analytics
- main developer on a KPI analytics platform for the fund marketing team of 10
- built dataset filters to query multiple subsets from multiple tables up to 17 million rows
- tuned queries to run up to 80% faster by denormalizing, indexing, and using lookup tables
- aggregated ~20 million rows monthly from ~10TB of data across 3 databases
- extended 15 flot.js features to incorporate d3.js features for powerful interactivity

developer 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
- won internal demo day, hosted as a feature competition between the 6 interns
- designed and built a user friendly researcher portal landscape interface
- implemented and fixed various features, along with the accompanying migrate scripts

INVOLVEMENTS

Tech Retreat　　　　　　　　　winter 2014 - *present*
founding organizer
- first annual highschool learnathon and hackathon in Canada
- coordinated logistics and sponsorships for 300 attendees

Ace Consulting Group　　　　fall 2014 - summer 2015
associate
- prepared research deliverables for clients HearthStats and Vitameter
- organized logistics for various startup networking events

Enactus Waterloo　　　　　fall 2014 - summer 2015
founding vp finance
- built the foundation for the club's accounting, sponsorship teams
- ranked top 16 in Canada within months of inauguration

Brébeuf Model United Nations　　fall 2012 - summer 2014
delegate
- dedicated ~600 hours to research, speech writing, fundraising
- received *Outstanding Delegation* award at NMUN - New York 2014
- awarded *Best Delegate* at Montreal 2013, and McGill 2014

EDUCATION

fall 2014 - winter 2019　　　**University of Waterloo**
Bachelors of Computer Science, co-operative program
upper-year mentor, orientation leader, TerribleHack organizer

SKILLS

ruby	rails	d3.js
java	node.js	three.js
javascript	flask	matplotlib
c++		
python		
bash	jquery	mysql
racket	socket.io	mongodb
lua	express	sybase

atom	git	photoshop
vim		illustrator

PROJECTS

TechTanks
rails, resque, redis, paper.js
programming game; teaching ruby and
AI basics to high school students through
paper.js rendered cannon powder

geovibes
three.js, flask, Microsoft Cognitive Services
news visualizer; 3D globe visualization of
batch processed journalist sentiments,
providing an overview of recent
international news articles

OpenSpace: Cassini module
OpenSpace, NASA SPICE data, lua
space simulation; built the Cassini module
from Earth to Saturn, and mapped NASA
SPICE data timestamps to corresponding
OpenSpace scenes

watchr (most socially impactful prize)
node.js, android, socket.io
crisis management platform; log suspicious
sounds using people's phones, cluster
sound events by time and geolocation to
backtrack origin and send evacuation routes

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