# SINA KHALILI

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# SKILLS

### **Technical**

Python, Haskell, C, C++, Embedded Linux, Javascript, JSX, NodeJS, HTML/CSS, Machine Learning, Vim, Most Posix-Compliant OSs (Linux, OpenBSD, OSX), Java, Android Studio, Bash, GDB.

# WORK EXPERIENCE

# Startup Co-founder

Fireout.io, Vancouver, BC

September 2016 - March 2018

- Started a company to create an automated fire extinguisher IoT device using machine vision, with two other friends in second year of university in order to pursue a project completely and teach myself business
- Developed and maintained the codebase for both the hardware controlling the nozzle of the device as well as the main system running the identification software, with two other developers to create working prototype
- Trained a YOLO machine vision model to correctly identify fire using video in order to aim extinguisher and put fire out
- Maintained installing various CUDA dependencies and python packages on multiple operating systems to ensure programs would run on all systems

# **Business Administration and IT**

Dawson Realty Experts, Vancouver, BC

September 2016 - July 2016

- Took a decade of paper documents and put it into a database for quicker access, and then imported that database into a new company CRM
- Installed various anti-virus tools and disinfected some infected office computers

## Video production

Peak SFU, Burnaby, BC

September 2017 - March 2018

- Worked with the Peak SFU multimedia team on many projects to create videos about Simon Fraser University in order to engage the SFU community.
- Attracted over 20,000 views to the SFU videos by keeping production quality high and keeping topics relevant.

## Personal Projects

#### Personal Website

sinakhalili.com, Vancouver, BC

September 2017

• Created a personal website using HTML/CSS frontend and deployed to github pages to showcase myself as well as to learn web deployment and development.

## Derivative Calculator with GUI

Differentiator, Vancouver, BC

September 2018

• Created a equation differentiator which takes in a user input with a gui using tkinter, symbolically differentiates the input and returns a properly formatted LaTeX file with derivative answers to created to expedite tedious derivatives

## Machine Vision Translator

LinguaLook, Vancouver, BC

December 2017

• Made a program which looks through the laptop camera to recognize common objects in context and translate those objects into a desired language using Google Translate API, YOLO9K, and OpenCV and Tkinter in python, to be used for language learning

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# Competitions

#### VanSASH

1st Place 2017, 1st Place 2018, Vancouver, BC

September

• Created analysis of turnovers in powerplays based on player using python and R, came back next year and was the winner of the hackathon with an analysis on soccer corner kicks

# Vanquish

3st Place, Vancouver, BC

September 2018

• Created an IoT sign using a raspberry pi and camera in order to detect right hooks on the road and dynamically alert drivers of incoming cyclists

# Hack the North

Waterloo, ON

September 2017

• Participated in Canada's largest hackathon at Waterloo. Created a fitness chatbot app which asks users a series of questions in order to create a pleasant route to run, used for running in a new city

# ACADEMIC PROJECTS

# Online 3d Tic Tac Toe

Web Development, SFU Burnaby

Spring 2017

• Created a website where two users could go to a website and play a game of 3d tic tac toe together, using NodeJS as a backend for webdev class

## IoT LED matrix

Embedded Systems, SFU Burnaby

Summer 2018

• Created an embedded system controlled by a BeagleBone microcroller which took input from a website and output it to an LED matrix

# Android walking school bus app

Software Engineering, SFU Burnaby

Summer 2018

• Created an app with a group of classmates which tracked a user as they walked to school for viewing by another user, namely the parent. Location tracking using google maps API

# ACADEMIC AWARDS

- H.Y. Louie Award \$5000
- SFU Entrance Scholarship \$1000
- Graduation Programs Examination Scholarship \$1000
- Coquitlam Foundation Award \$500

# **EDUCATION**

# BASc, Computer Science

- Simon Fraser University, Burnaby BC
- Expected Grad 2020