Karen **Hong**

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Experience

Verity Studios
Zürich, Switzerland

Software Development Intern
Sept. 2018 - Apr. 2019

Bringing together technology and the arts with indoor drone show systems.

Skills: C++, Qt, Python, Gerrit, Git

- Designed and implemented a music managing application as a part of the operational software suite of a drone show system
- Augmented the functionality of various tools and applications by writing efficient and well-structured production code
- Assisted in client demonstrations, conducted tests, and collected data from the drones and software system

Awake Labs
Toronto, Ontario

Software Developer
May 2017 - Aug. 2017

The company behind Reveal; an AI powered application designed to support care for mental health disorders.

Skills: Android Development, Flask, Python

- Engaged in discussions concerning the design of the Reveal platform; topics included database schema, security, and API structure
- Prototyped an Android application that interacts with the Google Speech API and implemented supporting API calls

Fatigue Science
Vancouver, British Columbia

Junior Software Developer
Sept. 2016 - Apr. 2017

A wearables company focused on using predictive fatigue to optimize performance and minimize risk.

Skills: TypeScript, JavaScript, C++, Qt, AngularJS, Ionic, Bitbucket, testing

- Implemented features, re-factored code, and debugged a hybrid mobile application
- Assisted in testing and validating an evolving web application and mobile platform
- Constructed and deployed a cross-platform Qt application designed using object oriented principals

Education

University of British Columbia
Vancouver, British Columbia

BSc in Computer Science
Expected May 2020

Currently enrolled in the final year of a bachelor's program

ETH Zürich
Zürich, Switzerland

Mobility Studies in Computer Science
Feb. 2018 - Aug. 2018

A semester long exchange. Relevant courses include: Introduction to Machine Learning, 3D Vision, and Ubiquitous Computing

Projects

Global Alignment of Meshes on the Hololens
ETH Zürich

Mesh Registration Analysis for the Hololens
June. 2018

- Evaluated the performance of the the Guaranteed Outlier Removal algorithm (GORE) and RANSAC by analysing alignment errors and run-times on meshes generated by the Microsoft Hololens

The Adventures of Jack O'Lantern
UBC

Platform game in Elm
Nov. 2017

- Leveraged a functional programming language to create a side-scrolling platform game including moving enemy units, collectibles, high scores, and a start menu
- Coordinated development with 3 other individuals through issue tracking and version control

UBC Course and Room Catalogue
UBC

TypeScript API for parsing, storing, and querying information
Nov. 2017

- Implemented a RESTful API that is capable of handling queries about UBC courses and buildings
- Employed object-oriented principals to write easily extensible code and composed a suite of tests to provide over 95% line coverage

Pokédex Database
UBC

Web application that interfaces with a relational database
June 2016

- Created a web application that uses PHP and SQL to interact with a database managed using Oracle
- Designed the conceptual schema of the database and structured queries for the retrieval and addition of data