Karen **Hong**

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Experience

The Social Health Lab   *Vancouver, Canada*

RESEARCH ASSISTANT FOR THE SMARTPHONE SENSING APPLICATION (PART-TIME)   *Sept. 2019 - Present*

Research lab in the Department of Psychology at the University of British Columbia

Skills: Android development

- Applied programming skills in a health research setting

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

- Developed features for applications used in the operational software suite of a drone show system
- Assisted in client demonstrations, conducted experiments, 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 including database and API design
- 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
- Constructed and deployed a cross-platform Qt application designed using object oriented principals

Education

UBC Vancouver   BSc in Computer Science (expected May 2020)
ETH Zürich   Full semester exchange in the Department of Computer Science (Feb 2018 - Aug. 2018)

Projects

Dragon Adventure Bonanza   *UBC*

2D PLATFORM GAME USING C++ AND OPENGL   *Nov. 2019*

- Produced a multi-level desktop game including enemy AI, animation, physics, and collision detection
- Developed core game components such as the rendering system and game engine
- Managed the project and coordinated development with 5 other programmers

A Basic Kernel   *UBC*

BOCHS IA-32 (80X86) SIMULATED KERNEL USING C AND X86 ASSEMBLY CODE   *Nov. 2019*

- Designed and implemented a basic kernel capable of memory and process management, time-sharing, interprocess communication, and device interactions

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 web language to create a game containing randomly generated platforms, enemy units, and score keeping