

Karen Hong

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Experience

Part-Time Research Assistant, The Social Health Lab

Vancouver, Canada

RESEARCH LAB IN THE DEPARTMENT OF PSYCHOLOGY AT THE UNIVERSITY OF BRITISH COLUMBIA

Sept. 2019 - Present

Skills: Android development

- Worked on an Android application used for collecting survey and phone usage data for the Smart-phone Sensing Study
- Re-designed the application so that it can generically support other survey based studies

Software Development Intern, Verity Studios

Zürich, Switzerland

BRINGING TOGETHER TECHNOLOGY AND THE ARTS WITH INDOOR DRONE SHOW SYSTEMS.

Sept. 2018 - Apr. 2019

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

Software Developer, Awake Labs

Toronto, Ontario

SUPPORTING PEOPLE WITH INTELLECTUAL AND DEVELOPMENTAL DISABILITIES USING TECHNOLOGY

May 2017 - Aug. 2017

Skills: Android Development, Flask, Python

- Engaged in discussions concerning the design of the software platform including database and API design
- Prototyped an Android application that interacts with the Google Speech API and implemented supporting API calls

Junior Software Developer, Fatigue Science

Vancouver, British Columbia

A WEARABLES COMPANY FOCUSED ON USING PREDICTIVE FATIGUE TO OPTIMIZE PERFORMANCE AND MINIMIZE RISK.

Sept. 2016 - Apr. 2017

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

University of British Columbia

Vancouver, British Columbia

BSc IN COMPUTER SCIENCE

Expected May 2020

Relevant Courses: New Venture Design, Operating Systems, Programming Languages, Algorithm Design and Analysis

ETH Zürich

Zürich, Switzerland

SEMESTER EXCHANGE IN COMPUTER SCIENCE

Feb. 2018 - Aug. 2018

Relevant Courses: Introduction to Machine Learning, 3D Vision, Ubiquitous Computing

Projects

Dragon Adventure Bonanza

UBC

2D PLATFORM GAME USING C++ AND OPENGL

Dec. 2019

- Created a multi-level desktop game including enemy AI, animation, physics-based movement, and collision detection
- Implemented core game components such as the game engine and rendering system
- Elected best game by an industry jury and most fun by a popular vote
- Managed the project and coordinated development with 5 other developers

A Basic Kernel

UBC

BOCHS IA-32 (80X86) SIMULATED KERNEL USING C AND X86 ASSEMBLY CODE

Nov. 2019

- 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 including randomly generated platforms, enemy units, and score keeping