Allyson **Aberg**

Systems Design Engineering

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EXPERIENCE

MacOS and iOS Engineer | *TunnelBear / McAfee*

2017 - PRESENT

- Led the Siri Shortcuts Project, the integration of Apple's Siri Shortcut API into TunnelBear's iOS application. Rewrote VPN functionality into an application extension using the TunnelBear SDK, earning a feature on the App Store.
- Led development of TBMapKit, a framework shared between the iOS and macOS applications. Implemented custom SpriteKit animations and increased map rendering time by 150%.
- Prepared iOS and macOS applications for migration to a new SDK. Rewrote aspects of both platforms to conform to MVVM models from a previously MVC based approach.

Operations & Tech Manager | *Liberty Dental Hygiene*

2018 - PRESENT

- Managing day-to-day operations including accounts payable and recievable, client data storage and backup, and working with owner to establish brand identity through online and in-person marketing.
- Developing and maintaining company website and optimizing SEO rankings. Implemented A/B testing to improve site performance.
- Designed a brand toolkit containing various marketing assets intented to unify the company's public image.

Mobile Developer | *Nascent Digital*

2017

- Developed an iOS Health Messaging application for Telus, using Cocoapods, PromiseKit, and HTTP requests to aggregate user data from an internal cloud-based database.
- Led development of a secondary iOS application meant to interface with Apple's Healthkit API, increasing testing and debugging efficiency by 300%.

SKILLS

Languages	Objective-C, Swift, C++, Python, Java
Tools	Xcode, CircleCi, Git, Unix/Bash
Courses	Data Structures and Algorithms Machine Learning (Andrew Ng) Human Factors in Design

AWARDS

Apple WWDC 2019 Scholarship Winner

- One of 250 student developers worldwide selected to attend Apple's WWDC Conference in San Jose, CA.

Sandford Fleming Technical Speaking Competition 2019

- Placed 1st in the University of Waterloo Technical Speaking Competition. Representing Waterloo in the 2020 Ontario Engineering Competition (OEC).

PROJECTS / COMMUNITY

ArMIDIllo

- A MIDI-based three-stringed synthesizer designed for stroke survivors.
- Built using a TEENSY 3.5, Arduino Uno, Capacitive Touch Sensors, and Wii Nunchuk.
- Performed university-approved user testing and research with real members of the target user group on a weekly basis.

Tonal

- Musical note detector built with Arduino, Python, and a ton of Fourier Transforms.

Vision

- Creating custom 3D printed eyewear using Facial Landmark Detection (Kairos) and CAD models (Solidworks).

EDUCATION

University of Waterloo
Systems Design Engineering
Graduating Class of 2021