

# Edward Taylor

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## Skills

### Software Development

- Backend (AWS, Rust in lambda, Postgres)
- Apps (Flutter, Android, iOS, Web)
- Linux (systemd, nixos, Raspberry Pi)
- C#, Go, Dart, Javascript, Kotlin, Python

### Team management

- Leading multiple projects
- Issues & project management
- Balancing priorities between clients, developers, deadlines and quality
- Knowing when to present a learning opportunity and when to step in

### Rendering & Interaction

- 3D Materials, Modelling & Maths
- Live data & interaction
- Projection hardware experience
- Passion for experimental techniques

## Recent Experience

### Smart Access

Lead Developer | Mar 2023 - Today

I joined Smart Access at the start of their software journey - they just had a prototype map app - a whitelabelled clone of an android map app. They have ownership over lots of Accessibility data with experience collecting it and wanted to build a platform to share it and grow. Together we have expanded the company in many directions, including the following projects:

#### Smart Access Navigation ([Web](#))

We reimplemented the mapping app in flutter to be cross platform and allow a faster development cycle. Initially, the app was a clone of the android app allowing the user to view the accessibility data, but we soon got to work on more ambitious features. We wanted to be able to remotely update the map data, so we built a backend in AWS using PostGIS and a Rust web server in lambda to serve requests to our frontends.

We next implemented an experimental Navigation System, merging our data with Open Streep Maps using Python GeoPandas and NetworkX to produce a sidewalk graph. This graph is imported to Postgres in our backend and routing is calculated using pgRouting and a patented algorithm for custom weighting.

#### Tagging/Annotation app

We see the future of mapping data including automation, so we built an internal app for building a dataset of geometrically annotated aerial imagery. New Zealand is lucky to have LINZ, which provides open source aerial imagery of the entire country. The app provides streamlined UX for different annotation workflows, including importing data from our other products.

#### Access Quest ([Web](#))

The latest venture has been to simplify data collection for our clients. We have built an app and hardware integration that speeds up and increases the accuracy of data collection. The app is a simple interface for collecting data with helpful UX and it integrates into the same backend.

The Smart Access platform is now flowing as a pipeline of data from users and clients the field to people with disabilities in the map app, with data annotation and intelligence in the backend.

## My Life My Voice ([Web](#))

Lead Developer | Feb 2023 - Today

With My Life My Voice I have been working on a peer support platform for people with disabilities. The organization had an existing process of emails and phone calls but wanted to build an automated platform that could pair user with supporters.

I used Stream Chat to handle the chat system and HasuraDB for the backend. I build custom authorization logic to securely pair users with supporters, allowing them to chat and share information.

The apps key audience included people with disabilities including intellectual and sensory disabilities, so we had to be extra mindful with our UX. In my time digging deep into flutter's accessibility features, I contributed back to the project by clearly communicating issues I found with reproducible examples.

## TASKA Prosthetics

Mobile Developer | Nov 2019 - Nov 2020

I joined TASKA as a mobile developer for their hand management app as a graduate developer. I contributed by prototyping options for expanding their app into multiple platforms, including iOS. Their hand communication system was written in Javascript and run inside a webview.

I experimented with a Kotlin KMP library to communicate with the hand directly, allowing us to build a native app. This ended up being a dead end as there was too much technical debt in the existing javascript library without clear documentation or support from the original developers.

I also built interfaces into the webview on both iOS and Android platforms with basic interfaces to view the live data on either platform from the hand.

## History

### Victoria University

Nov 2018 - Oct 2019

*Alexa App and Class Tutor*

- Accessibility technology
- Alternate UX systems
- Supportive teaching

### Savesign

Nov 2017 - Dec 2019

*Display CMS for Raspberry Pi*

- Java
- Linux Configuration

### GeneralApps

Apr 2016 - Jan 2017

*Android app development*

- Client negotiation
- App development
- Live audio programming

## Education

### Victoria University of Wellington

2017 - 2019

**Bachelor of Design Innovation (Media Design)**

- Deans Award
- 7.32 GPA [Download Transcript](#)

### Canterbury University

2014 - 2016

**Bachelor of Science (Computer Science) [Incomplete]**

First year completed with average of A-  
Dropped out second year to pursue applied skills