Edward Taylor

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I'm a full-stack lead engineer who brings clarity to complex, ambiguous problems by delivering robust systems that just work. From high performance backends and geospatial data pipelines to cross-platform apps and empathetic UX, I operate across the stack within my deadlines. I thrive in fast-moving environments where wearing multiple hats — architecting, scoping, coding, managing, or prototyping — is part of getting great products shipped.

Skills

Software

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

Teams

- Leading multiple projects
- Translated stakeholder needs into technical solutions
- Crafted clear project scopes and managed backlogs
- Created growth opportunities while meeting deadlines

Product

- Implemented robust CI/CD with Github Actions
- Driven improvements in DX & Tooling
- Managed multiple app store deployments
- Delivered accurate budget and time estimations
- Pioneered AI prototyping solutions

Recent Experience

Smart Access

Lead Developer | Mar 2023 - Today

At Smart Access, I spearheaded the transformation from a white-label prototype to a production-grade cross-platform mapping system, architecting a scalable backend with Rust and AWS while delivering modern UI solutions through Flutter. The company had accumulated valuable accessibility data over years of collection, and I designed a comprehensive platform to maximize and expand this data asset. Under my leadership, we successfully expanded the company across multiple strategic directions:

Smart Access Navigation (Web)

I drove the reimplementation of the mapping app in Flutter to enable cross-platform compatibility and accelerate the development cycle. Starting with a functional clone of the Android app for accessibility data visualization, I quickly expanded it to incorporate ambitious features. To enable remote map data updates, I engineered a backend in AWS utilizing PostGIS and a Rust web server in lambda to efficiently serve requests to our frontends.

Working closely with the founder to define strategic direction, I designed and implemented an experimental Navigation System, successfully integrating our proprietary data with Open Street Maps through Python GeoPandas and NetworkX to create a comprehensive sidewalk graph. This graph is

imported to our Postgres backend where routing is calculated using pgRouting alongside a patented algorithm I implemented for custom weighting.

In the front end, we integrated experimental computer vision tools to assist blind users with seeing their world, built in to our app.

Tagging/Annotation app

In collaboration with the founder, we identified automation as key to the future of mapping data. Based on this vision, I created an internal app for building a dataset of geometrically annotated aerial imagery, leveraging New Zealand's LINZ open-source aerial imagery resources. I designed a streamlined UX for various annotation workflows, incorporating powerful data import capabilities from our other products. I carefully designed the app internals to allow other developers to contribute.

Access Quest (Web)

Following strategic discussions with the founder, I executed our latest venture to accelerate data collection by developing an app with hardware integration that dramatically improves both speed and accuracy of field data collection. I created an intuitive interface with optimized UX that seamlessly integrates with our unified backend infrastructure.

I mastered advanced techniques while working with Smart Access - implementing workflows for local database testing, developing shared flutter libraries between apps, establishing automatic deployment pipelines, and more recently, pioneering feature prototyping with AI tools.

The Smart Access platform now operates as a comprehensive data pipeline, efficiently moving information from users and clients in the field to people with disabilities through the map app, with sophisticated data annotation and intelligence in the backend.

My Life My Voice (Web)

Lead Developer | Feb 2023 - Today

At My Life My Voice, I architected and implemented a comprehensive peer support platform for people with disabilities. I transformed their manual process of emails and phone calls into a streamlined digital platform that automatically pairs users with appropriate supporters.

I engineered a secure real-time communication infrastructure using Stream Chat and designed a robust backend with HasuraDB. I developed custom authorization logic to ensure secure and appropriate pairing between users and supporters, enabling confidential information sharing and communication.

Recognizing that the platform's primary users include people with diverse disabilities (intellectual, sensory, and physical), I prioritized exceptional accessibility in every aspect of the design. I conducted deep research into Flutter's accessibility capabilities, identifying limitations and creating innovative workarounds. My commitment to inclusive design extended beyond the project itself, as I contributed back to the Flutter community by documenting issues with detailed reproducible examples, helping improve the framework's accessibility features for all developers.

TASKA Prosthetics

Mobile Developer | Nov 2019 - Nov 2020

At TASKA Prosthetics, I drove mobile innovation for their advanced prosthetic hand management application. I lead exploration of multi-platform strategies, developing prototypes that demonstrated viable paths to expand their Android-only solution to iOS and other platforms.

I identified that their existing hand communication system, implemented in JavaScript within a webview, presented significant limitations for future development. Taking initiative, I designed and prototyped a Kotlin KMP (Kotlin Multiplatform) library to enable direct communication with the prosthetic hardware, which would allow for truly native app development across platforms.

Though technical debt in the existing codebase ultimately prevented full implementation of this approach, my analysis provided valuable strategic insights for the company's technology roadmap. Meanwhile, I successfully engineered cross-platform webview interfaces for both iOS and Android that enabled real-time visualization of prosthetic hand data, significantly improving the user experience for both platforms while working within existing constraints.

History

Victoria University

Nov 2018 - Oct 2019

Alexa App and Class Tutor

- Developed accessible voice interfaces
- Designed alternative interaction models
- Mentored students in technical skills

Savesign

Nov 2017 - Dec 2019

Display CMS for Raspberry Pi

- Built robust Java applications
- Configured Linux systems for reliability
- Developed embedded display solutions

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