Cody Goldberg

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Platform Software Director | Biomedical Engineer | Mobile Architect
Highly skilled engineering leader with 8+ years of experience at the intersection of healthcare and high-performance software. Expert in Flutter, iOS/Android, and Bluetooth. Proven track record of architecting cloud-native services and leading cross-functional teams to ship FDA-regulated medical software. Enjoyer of a good yak-shave.

Experience

Pison Technology | Boston, MA
Software Applications Lead | Dec 2022 - Mar 2023
Platform Software Director | Mar 2023 - Present

- Architected a unified technology stack across cloud and client applications, ensuring seamless 1kHz EMG data transfer for real-time performance-critical applications.
- Engineered multi-platform Bluetooth L2CAP libraries to enable device-to-client communication across a fragmented hardware ecosystem.
- Mentored and led a team of 6 engineers across mobile, web, and backend.
- Accelerated Dart adoption with dart:ffi integration with Pison's machine learning library in C.

Teva Pharmaceuticals | Cambridge, MA
Mobile Applications Lead, Android & iOS | Feb 2016 - 2019
Associate Director, Engineering & Applications | 2019 - Nov 2022

- Responsible for a team of 10 engineers, who deliver tools and applications for Teva.
- Responsible for shipping several concurrent Android and iOS applications (see Projects).
- Forecasts long term technical strategy across Teva Digital Health.
- Designed Quality Management System (QMS) document pipelines, to produce supporting regulatory documents, tied to continuous integration.
- Oversees in-house tools to accelerate, maintain, and test applications
- Ensures clean code practices and Test Driven Development (TDD) are applied to Teva's software development lifecycle.
- Designed a localization audit platform, to aid teams in identifying l10n correctness across all international markets.
- Responsible for management and development of Android and iOS applications.
- Spearheaded the usage of Flutter, a bleeding edge framework to accelerate development time, to meet highly rigorous approval milestones.
- Coordinated conversation between Commercial & Product teams
- Designed multiple in-house Android frameworks to accelerate the creation of medical applications.
- Designed a robust Bluetooth device system to allow control of multiple medical devices.
- Introduced modern developmental patterns (Kotlin, ReactiveX, MVI) to the entire Android codebase.
- Enforced test-driven development with pre-merge unit testing, and weekly UI testing - to reduce QA cycles from external vendors.
- Oversaw and managed vendors for support on multiple applications and devices.
- Coordinated with internal software teams to match development patterns and ensure alignment.

Student | Kingston, RI | University of Rhode Island
Bachelors of Science in Biomedical Engineering | May 2016

Biomedical Engineering Lab | Kingston, RI | University of Rhode Island
Course Developer, Teacher Assistant | Sep 2015 - May 2016

- Designed and developed an Android framework to ease communication between the PIC microprocessor and Android.
- Designed a lab course to teach Android fundamentals and Bluetooth communication.

Wearable Biosensing Lab | Kingston, RI | University of Rhode Island
Lead Researcher, Android Developer | Oct 2014 - May 2016

- Designed and developed EchoWear (see Projects) - a Parkinson's assist application to train and improve voice degradation.
- Developed in-house Android framework to direct multiple research projects (see Projects).
- Designed coursework and lab materials for a graduate level Wearable IoT course.
- Designed and developed an Android application to record tremors from Parkinson's patients in real-time, and display a Parkinson's specific "rating" scale (UPDRS).
- Real-time transfer of content-rich data over multiple IoT devices.
- Worked with Univ. Pittsburgh to develop a real-time Parkinson's detection algorithm, to assist physicians in detection and identification.
- Designed and developed a multi-modal ecological monitor for at-risk children, used by Butler Hospital in ongoing suicide tendency research (see Projects).

RAM Computers | Kingston, RI | University of Rhode Island
Senior Service & Sales, Apple Certified Service Manager | Aug 2012 - Sep 2015

Selected Publications & Awards

IEEE BSN 2015 Hackathon "Best Application" Winner at MIT Media Lab

H. Dubey, K. Mankodiya, J.C. Goldberg, and L. Mahler
A Multi-Smartwatch System for Assessing Speech Characteristics of People in Dysarthria in Group Settings
Accepted at IEEE Healthcom 2015

H. Dubey, M. Abtahi, J.C. Goldberg, L. Mahler, and K. Mankodiya
EchoWear: A Smartwatch-based System for Speech Treatments of Patients with Parkinson's Disease
Accepted at Wireless Health 2015

Projects

Pison App
A wrist-worn device that monitors both mind and body. The wearable device collects EMG data, and when combined with traditional physiological sources like heart rate, allows a greater understanding towards one's cognitive health.

Digihaler, QVAR, GoResp, and Digihaler Automated Questionnaire
The companion application to Teva's Digihaler brand; connecting to multiple digital inhalers to help patients understand their usage, and discover new ways to improve their health. Digihaler integrates with healthcare professionals to accelerate compliance and provide insights with ongoing treatment in the respiratory space.

CareTRx
An Asthma & COPD management app developed within Teva Pharmaceuticals. CareTRx allows patients to automatically monitor their supported medication to give them insights on adherence, symptoms, triggers, and

flare-ups.

EchoWear
A research project which uses both an Android smartphone and smartwatch. The technology combined is used to help retrain the vocal degradation in Parkinson's patients through the use of personalized technology.

TeleTremor
An Android application designed to be used with both a smartwatch and smartphone. TeleTremor records and relays tremor data from a Parkinson's patient to their monitoring physician, to assist in determining proper dosages.

AnEar
A collaborative project between the University of Rhode Island and Brown Medical's Butler Hospital. AnEar is a multi-modal ecological monitor for at-risk children. The goal is to help determine suicide tendency through the use of understanding activity.

Hermes
The backbone of multiple research projects at the University of Rhode Island. Hermes is an Android framework designed to speed up the development time for wearable research, by simplifying the Android API. Hermes also provides support for other devices such as the Pebble Watch and the RedBearLabs BLE Nano.

Poro Snax
A personal Android application located on the Google Play store. Poro Snax is a League of Legends information resource, designed with user experience and Material Design in mind.

CleanTap
A personal Android application in beta on the Google Play store. CleanTap is a Material Designed counterpart to Untappd, a beer enthusiast's tracker and information source.