# Calvin S. Rai

# EDUCATION

M.S. Structural Engineering

UC San Diego | March 2017 | GPA: 3.65

**B.S. Civil Engineering** 

Cal Poly Pomona | June 2015 | GPA: 3.65 (yup, same gpa)

# SKILLS

Kotlin / JavaKotlin CoroutinesKotlin FlowCombineJetPack ComposeRxSwift

RxJava OkHttp / Retrofit

Android StudioXcodeGraphQLPythonFigma

# CERTIFICATES

React Developer Nanodegree
Udacity | January 2019

CoP Computer Programming
San Diego Mesa College | June 2018

Android Basics Nanodegree

Udacity | October 2018 | Grow With Google Scholarship

Intro to Programming Nanodegree

Udacity | August 2017

# COURSES

Java & C# Programming

Fluid Mechanics

**Aerospace Structural Mechanics** 

Advanced Structural Analysis

**Analysis of Composite Materials** 

Matrix & Linear Algebra

Multivariable Calculus

Physics for Scientists & Engineers

**Vector Statics & Dynamics** 

Mechanics of Materials

Finite Element Analysis

Galaxies & Cosmology

# PROJECTS

### LÜM Android App

Live Undiscovered Music (LÜM) | Oct. 2019 - Oct. 2021

A social media and music-streaming app focussed on connecting up-and-coming artists to their fanbases. Over 50k downloads on Android with a 4.7 Play Store rating. Led full development of this MVVM single Activity application utilizing core JetPack components (Room, Navigation, LiveData, Flow, and more).

Developed core features including multiple social media feeds using custom view types and pagination, media uploading and posting using AWS S3 Buckets, push notifications with Firebase Cloud Messaging, direct-messaging and in-app notifications using socket connections and custom queuing logic, user onboarding and sign-in flows with Google & Facebook Sign-In, live-streaming with the Agora SDK, and material theming and styling. Other features included user profile screens with Coordinator Layout, custom WebView Fragments, and programmatic UI in lieu of XML.

#### Reeltime Android App

Intrepid Pursuits | May 2019

Collaboratively developed a social networking application where users could create events to see movies with friends. Modern Kotlin-based tech stack included reactive programming with RxJava2, networking with Retrofit and OkHttp, and the MVVM app architecture.

# EXPERIENCE

### **Software Engineer II**

Acorns | January 2022 - Present | Remote

- Developed specialized tool tips called Learn Tips to display educational definitions for various financial terms and phrases app-wide using custom markdown and regex parsing.
- Co-developed Learn Hub on iOS, a core flow in Acorns that provides a hub with articles, videos, and courses for customers to engage in and increase their financial knowledge, utilizing an entire SwiftUI and Combine flow.
- Build a custom Brightcove & ExoPlayer-wrapped media player in JetPack Compose for use in Learn Hub and other core video flows in the app. Utilized AndroidView for XML interoperability as well as Kotlin Flow and Coroutines for player logic, state flow, and analytics.
- Lead iOS engineer on Core Design Systems developing custom and reusable UI components and design tokens for use on the iOS client. Utilized Pulsar to develop templates for SwiftUI components and design data to automate design delivery from Figma through Supernova.

# Lead Android Software Engineer

Live Undiscovered Music (LÜM) | October 2019 - October 2021 | Madison, WI / Remote

- Worked with CTO to configure proper client-side networking interface using Retrofit and OkHTTP to communicate with server-side REST API's
- Led weekly team meetings and stand-ups across two cross-functional technical teams in Australia and India during the project's second phase with a full-scale launch in October 2020
- Oversaw a team of 6 senior developers and aided in PR reviews, providing technical documentation and code samples for core features, and guiding in architectural planning
- Developed a new integrated software development and design meeting format for LÜM's iOS, Android, Web, and Backend platforms; led weekly meetings on sprint planning using an Agile-like process

# **Software Developer Apprentice**

Accenture Digital Products (Intrepid Pursuits) | April 2019 - June 2019 | Boston, MA

- Responsible for working collaboratively with UI/UX designers and web developers to build, test, and deploy Android applications
- Technologies include focus on reactive programming with Rx, unit testing with Mockito, and web integration with REST API's and MVVM architecture
- Heavily integrated in the Agile (SCRUM) workflow and responsible for creating and delivering clientside presentations and demos

### Structural Designer I

LPA, Inc. | April 2017 - March 2018 | San Diego, CA

- Responsible for computational analysis and structural design of various K-12 schools, corporate complexes, & other structures. Open collaborative environment with other LPA architects & interior designers.