

Michael Yu

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Education

University of California, Los Angeles

Bachelor of Science in Computer Science

Los Angeles, CA

Sept. 2019 - Jun. 2023

Experience

University of California, Irvine

Research Intern at the Networked and Game Systems Lab

Irvine, CA

Jun. 2018 - Present

- Developed secure joining protocol using data-over-sound communication
 - Implemented data-over-sound device communication using Chirp.io SDK
 - Designed data serialization method that stored variable-length plain-texts in constant-size byte arrays
 - Data serialization method resulted in predictable payload sizes and significantly faster data-over-sound communication
 - Built custom Java library for AES encryption and decryption
- Developed native Android application used to conduct patient trials for iXercise platform
 - Bundled all functions necessary to record and conduct patient trials into a single application
 - Incorporated device discovery using Android's native network service discovery implementation
 - Created UDP Client-Server for middleware communication
 - Designed a background service to poll heart rate data
 - Implemented application user authentication using OkHttp Library

Projects

Nothing But Stats

- A React website and React Native app that displays NBA player stats
- Implemented REST API in Java with endpoints for getting NBA data and writing NBA data to a Google Firestore database
- Incorporated basic authentication for REST API to prevent unauthorized non-GET requests such as PUT, POST, etc.
- Worked with Gson library for JSON serialization and deserialization
- REST API and React website hosted on Heroku

Easy Planner

- An Android application that creates a digital planner using text extracted from user-uploaded images of homework boards
- Extracted text from images using Google's Mobile Vision API
- Placed 3rd in California Congressional District 48 for the 2017 Congressional App Challenge
- Currently available on the Google Play Store with over 1,000 total installs

Piano Tiles

- Recreated the mobile game "Piano Tiles" in Java and used Java Swing Components for the GUI
- Implemented methods for randomly generating levels and for keeping track of high scores

Skills

Technologies/Other Java, JavaScript, React, Native Android Development, Git, Gson, Google Firestore, Chirp.io SDK

Awards

7th Place in Senior Division - High School Programming Competition

Competed in programming competition at Cal Poly Pomona

Pomona, CA

May 2018

3rd Place in District for the Congressional App Challenge

Submitted Android application and competed against other high school students

48th District, CA

Dec. 2017

USA Computing Olympiad Silver Level

Competed in online programming competition

N/A

Dec. 2017