

BILL LIU

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EDUCATION

University of California, Los Angeles

B.S. Computer Science 2022

3.82 Major GPA

EMPLOYMENT

InTouch Health | Provider Access Software, *Software Engineering Intern*

June 2019 - Current

- Worked on the Provider Access Software (PAS) team, delivering thousands of lines of Objective-C code to our enterprise Telehealth iOS application at the next update, impacting 10,000+ endpoints in healthcare locations such as Mayo Clinic and Yale-New Haven Health System.
- Implemented WebRTC signaling during audio/video sessions designed to operate in conditions of up to 30% packet loss (common in hospitals).
- Built an in-call image sharing platform used by medical professionals during Telehealth sessions occurring over 5,000+ times every day.
- Led design review to manage the impact of integrating Swift into a primarily Objective-C and C++ app ecosystem in order to leverage power Swift features such as enums with associated values.
- Collaborated with design and our clients to achieve parity with our desktop PAS application and deliver new impactful features with sharing media during Telehealth sessions.

Logos News LLC | Mobile Team, *Software Development Intern*

Nov. 2018 - May 2019

- Worked on Logos News, a social media platform combining professional journalism techniques with machine learning to combat political biases in newsfeeds and help users become more politically aware.
- Led front-end and back-end efforts to completely redesign the structure of our Firebase Realtime Database and our calls to the Firebase API written in Swift for our user-facing iOS application, allowing for fewer calls to Firebase API and reducing newsfeed refresh latency by over 100ms.
- Dispatched calls to write and fetch data from Firebase to update cache and render UI components in Swift.
- Developed user and article engagement mapping feature using Google Maps API.

PROJECTS

iOSDH

App designed to provide drivers with an outlet to autonomously, hands-free, report potholes they encounter to the relevant government agencies. Built with iOS SDK in Swift, and makes calls to Firebase Realtime Database and our ML model in Google ML Engine, updating a dashboard web app built with JavaScript. <https://github.com/eprotagoras/iOSDH>

Up2Date

Flexible and customizable news subscription platform that allows users to keep up with relevant topics. Historical data scraped with Bing Search API, while services are delivered to users with Amazon SES. Implemented backend API through a Django server hosted on AWS Elastic Beanstalk, and implemented user interaction with a Chrome extension. <https://github.com/jamqd/Up2Date>

Sincerely, AI

Deep learning project designed to classify sincere text with a model trained using transfer learning. Implemented backend API with Django, wrote and trained ML model with Keras and AWS, implemented UX through Chrome and Firefox browser extensions integrated with Twilio API. <https://github.com/jamqd/SincerelyAI>

Micromouse

Autonomous robot designed to find the center of a 16x16 maze programmed using Arduino. Designed schematic and PCB from scratch using Eagle, and developed maze-solving algorithms with C++. <https://github.com/eprotagoras/micromouse>

GravityFall

Jump and reverse gravity your way through dangerous dungeons to find treasure. Built from the ground up in Unity, and scripted with C#. Winner of Best Game at Hack on the Hill V @UCLA. <https://github.com/eprotagoras/GravityFall>

StencilMe

App that uses the iOS ARKit API to display a user image on a flat surface of their choice, removing the need to carry around or create physical stencils to replicate their hand-drawn images. Built with iOS SDK in Swift. Winner of Grand Prize at UCLA ACM Hackschool Winter 2019. <https://github.com/eprotagoras/StencilMe>

SKILLS

TECHNICAL SKILLS: Objective-C, Swift, iOS SDK, C++, C, JavaScript, React, Express, Python, Django, Git, Perforce, Bash