# David Lieu

Irvine, California

(626) 400-9089 | [davidlieu1@gmail.com](mailto:davidlieu1@gmail.com) | [linkedin.com/in/davidlieu1](https://linkedin.com/in/davidlieu1) | [davidlieu1.github.io](https://davidlieu1.github.io)

## EDUCATION

**University of California, Irvine** | Irvine, CA                     **Expected Graduation:  June 2022**
Bachelor of Science in Computer Science - GPA: 3.21
- Dean's Honor List

## PROJECTS

**Game of Life** | *React Native, Node.JS, Python, Expo*          **January 2021 - April 2021**
- Developed an iOS app with **React Native** and **Expo** that helps users combat video game addiction
- Employed search system practices to determine applicable suggestion based on user mood/interests
- Implemented **Google Firebase** to store and load data given by each user during each session

**ML Wine Classification** | *Python, Jupyter Notebook*          **January 2021 - February 2021**
- Classified the quality of two sets of wine with a neural network to predict the quality of the wine
- Reduced the amount of features based on standard deviation to improve performance of the model
- Predicted the quality of each wine with an accuracy of **74%** for white wine and **73%** for red wine

**Mindsweeper-171** | *Python*                                        **April 2020 - June 2020**
- Analyzed the given environment generated by Minesweeper's rules and constraints in order to determine an algorithm that solves Minesweeper boards as efficiently and accurately as possible
- Generated boards of various sizes and mine densities to test the determined algorithm using **Python**
- Successfully solved **100%** of small boards and **60%** of medium boards and **10%** of large boards

**skipLine** | *React Native, Node.JS, Expo*                             **February 2020**
- Conceptualized a contractor-based application to bypass any restaurants that require reservations
- Developed a mobile app for the iOS operating system using **React Native** and **Expo** in **Node.JS**
- Implemented **AirBnB Lottie** and **Google Cloud Places** to improve appearances and functionality

**Hash Map, Set, Array, Stack, Queue** | *C++*                             **June 2019**
- Reimplemented various data structures from scratch in **C++** to improve coding knowledge and ability
- Bolstered my technical knowledge in data structures and algorithm analysis

## INVOLVEMENTS

**SLO Hacks** | *San Luis Obispo, CA*                                    **February 2020**
- Brainstormed and generated ideas with a team, creating an overall project scheme for the idea
- Utilized **Git** to assist the team in group coding, seamlessly providing a framework to build the app
- Maintained an effective division of labor within the team to efficiently progress development

## RELEVANT COURSEWORK

- Data Structures
- Search Systems
- Information Retrieval
- Software Engineering
- Principles of System Design
- Principles of Operating System
- Intro to Data Management
- Intro to AI
- Machine/Data Mining

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, C/C++, JavaScript, HTML, CSS
**Frameworks/Libraries:** Git, MySQL, Node.JS, React Native, Expo
**Tools:** Jupyter Notebook, VSCode