# William Chung

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# **Projects**

## TRELS @ UC San Diego

Mar 2021 - Present // Placentia, CA (remote) // JS, React

- Receiving funding and faculty mentorship to pursue an extracurricular project which will benefit future UCSD students
- Collaborating closely with faculty and small team of students to update suite of educational Java applets, supporting full compatibility with modern web browsers and facilitating integration into course curricula
- Redesigning said web applications using React, focusing on improving user accessibility and refreshing the look and feel so the apps can better serve as useful learning tools for students

## Subbed @ UC San Diego &

Jan 2021 - Mar 2021 // Placentia, CA (remote) // Java, Android Studio, Parse

- Developed an Android subscription-tracking application called Subbed, allows users to manage their subscription services and related finances all in a single app
- Utilized Parse BaaS through Back4App to implement a remote database and achieve user authentication all the while saving time on backend development
- Awarded Most Innovative and Best Utility at CodePath Android Development Demo Day

# Huffman Coding @ UC San Diego &

Jan 2021 - Mar 2021 // Placentia, CA (remote) // C++

- Implemented command-line data compression tool based on Huffman coding algorithm, allowing for optimal compression and uncompression of any file
- Used custom input/output streams, enabling bitwise data manipulation and resulting in over 50% reduction in memory overhead
- Researched data structures available in C++ STL to program the most time- and space-efficient algorithms, leading to a linear time compression algorithm that minimizes memory usage

# **Experience**

### Embedded Software Developer @ UCSD ESW

Sep 2019 - Present // La Jolla, CA // Embedded C++, Cayenne

- Working on an independent, interdisciplinary team to create modules which will be used for remote data collection from renewable energy sources on campus
- Learning how to program a Raspberry Pi and integrating it into the power-monitoring module to relay data via an Internet connection for compilation and further analysis
- Supporting sustainability through engineering, with end goal being to promote expansion of renewable energy generation at UCSD

## Education

#### **UC San Diego**

BS in Computer Science Minor in Mathematics Sep 2019 — Expected Jun 2023 GPA: 3.94 / 4.00 Provost's Honors

## **Relevant Courses**

#### Comp. Org. & Sys. Programming

What is a computer & how does it work?

#### Advanced Data Structures

When & where to use specific data structures?

#### **Discrete Mathematics**

What mathematics underlie computer science?

## Skills

**Programming Languages** Java, C++, JS, Python

**Frameworks** 

Git, Android Studio, Parse

# **Community Service**

#### Masked Heroes Initiative $\mathcal{S}$

- UCSD Branch Founder & President, 2020-Present
- Helped donate over 20,000 masks to underprivileged healthcare centers and workers across CA

# **Activities & Interests**

Tau Beta Pi Engineering Honor Society

- Member, 2021-Present

#### **Lion Dance**

- 2019-Present

#### Vietnamese Culture

- Proficient in Vietnamese
- Love exploring Vietnamese cuisine, but nothing beats a good homemade meal