# Christopher B. Han

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#### **EDUCATION**

## University of California, San Diego | La Jolla, CA

Candidate for Bachelor of Science

*Major*: Mathematics — Computer Science

Major GPA: 3.96 / 4.00 (16 courses) | Cumulative GPA: 3.89 / 4.00 (31 courses)

Honors/Awards:

Muir Caledonian Society Member – for obtaining a GPA above 3.80 and reaching senior status

Provost Honors (5 academic quarters) – for obtaining a GPA above 3.50.

*Relevant Coursework (\* denotes currently enrolled):* 

Computer Science:

Basic Data Structure & Object-Oriented Design; Computer Organization & Systems Program; Mathematics for Algorithms & Systems; Advanced Data Structure; Design & Analysis of Algorithms\*; Software Engineering\*;

Mathematics:

Introduction to Differential Equations; Vector Calculus; Statistical Methods; Mathematical Reasoning; Applied Linear Algebra; Modern Algebra\*; Discrete Math & Graph Theory\*.

## PROFESSIONAL EXPERIENCE

The Design Lab, Internship, Research Assistant | La Jolla, CA

May 2022 - Present

Graduation Date: June 2024

- Utilized Amazon Web Services to create an Intelligent Virtual Assistant (IVA) to monitor the health of older adults:
  - o Programmed the IVA to use Ecological Momentary Assessment to survey users' conditions and record responses.
  - o Modeled quantitative inputs to display personalized graphs of health data.
- Conducted research at a healthcare center on the effectiveness of assessments and displays.

#### Suzhou H&L Instruments LLC, Internship | Suzhou, Jiangsu, China

May 2016 – Aug 2021

- Programmed a software in C++ that optimizes the transmission sphere used to measure the contour of a surface, improving the speed and accuracy of the testing process, and reducing costs for the company.
- Translated a simulation from MATLAB to C++ to help customers easily visualize the contour of a cylindrical surface.
- Engaged in an optics experiment team and the main objective was to measure an elliptical surface:
  - o Modeled the experiment on MATLAB to obtain a reference dataset to use as a point of comparison.
  - o Put forward a breakthrough idea on measuring the contour of an ellipse by suggesting that the surface contains two focal points; the laser would scatter at one point, reflect off the elliptical surface, then refocus at the second point.
  - o Utilized a Fizeau interferometer to measure the contour of surfaces.

## LEADERSHIP POSITIONS

# Model United Nations (MUN) | Suzhou, Jiangsu, China

MUN Executive and Secretary General

Sep 2017 – May 2019

- Prepared weekly meetings for club members to develop public speaking, writing, and critical thinking skills.
- Collaborated with supervisors and 6 other schools to decide on logistics of conferences and travel.
- Coordinated with 8 participating schools and school administrators to organize accommodation, transportation, food, and costs for the delegates.
- Researched debate and discussion topics for the delegates during the conferences.
- Created a website for the conference for convenient access to conference topics and schedules.

### International Youth Rights (IYR), Leader | Suzhou, Jiangsu, China

Nov 2017 - Dec 2019

• Led the organization to raise money for children in need of heart surgeries by hosting various events such as the annual triathlon & ninja course events and *IYR Concerts* with 10+ shows.

#### SKILLS, AND INTERESTS

*Skills*: Programming in Java, C, C++, and Python; familiar with Amazon Web Services (AWS); fluent in Mandarin and English; plays the saxophone, piano, ukulele.

Interests: Badminton, hiking, dancing, choreographing, creating mashups and remixes of songs, video editing.