# Jonathan Yin

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### **Education**

# University of California, San Diego

2020 - 2024

**GPA: 3.63** B.S. Major in Mathematics and Computer Science, Minor in Computer Engineering **Relevant Coursework:** Object-Oriented Programming, Basic Data Structures & OO Design, Software Tools/Techniques Lab, Computer Organization/Systems Programming, Honors Linear Algebra, Calculus/Analytic Geometry, Mathematical Reasoning, Intro/Differential Equations, Vector Calculus, Advanced Data Structures, Theory of Computation, Design/Analysis of Algorithms, Comp/Design for Digital Systems and Lab, Software Engineering

## **Technical Skills**

Proficiency in: Java, C++, C, SystemVerilog, Latex, HTML/CSS, Node.js, Unity, Unix/Linux, Windows

Experience in: JavaScript, Python, C#, SQL, Git, Unreal, ARM64, MongoDB, Firebase, Bash

# **Recent Projects**

### **Huffman Coding Tool for File Compression**

March 2022

- Utilized priority queue data structures and custom Node class objects/comparators in C++ to build Huffman coding trees via prefix encoding
- Implemented algorithms for data compression/uncompression of files, including I/O handling and header file creation in order to encode and decode messages

## **CS Capstone** — **Stanford OCR**

March 2020

- Helped develop an API for text detection and extraction on medical survey data
- Implemented a web application using Firebase and Node is for data collection and visualization
- Improved front-end design and user accessibility with Bootstrap and JavaScript frameworks

## **Experience**

**Stellantis** *Auburn Hills, MI* — Software Engineering Intern

May 2022 – August 2022

- Built working prototype for displaying and taking high-resolution screenshots of vehicle models from Autodesk Maya in Unreal Engine 5
- Developed UI for user input, including functionality for custom dimensions and prefixes

## Berkeley Pharma Tech Berkeley, CA — Software Engineering Intern

June 2021 – August 2021

- Built and published a mobile shooter game using Unity, including login system, game mechanics, and UI
- Worked with PlayFab and Photon Engine in order to develop multiplayer game functionality and backend systems

#### **Oshman Family JCC** *Palo Alto, CA* — PM Care Junior Camp Counselor

June 2019 – July 2019

• Led and planned activities for campers 6-14 years old; supervised camper behavior and ensured camper safety

#### **Stanford Pre-Collegiate Studies Web Technologies**

July 2018

- Built a social networking website, including front-end design and back-end database systems
- Utilized MongoDB and Node.js to manage user login data and queries

#### Gunn/Paly Hacks Best Game Design Awards

Oct 2017 & April 2018

- Collaborated with partners to build two 3D video games using Unity and C# scripts
- Practiced debugging methods within the Unity engine; improved teamwork and communication skills