Wilson Chen

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#### **EDUCATION**

# University of Southern California B.S Computer Science

Los Angeles, CA May 2025

GPA 4.0/4.0

## **SKILLS**

Programming Languages: C/C++, JavaScript, Java, Python, MySQL

Web Development: HTML, CSS, React, jQuery

DevOps: Git/ Github

#### **EXPERIENCE**

#### **USC Viterbi School of Engineering**

Los Angeles, CA

#### Teaching Assistant - CSCI 270 Introduction to Algorithms and Theory of Computing

August 2023 - Present

Mentored students in understanding topics such as amortized analysis, divide and conquer, greedy algorithms, graph algorithms, dynamic programming, network flow and NP-complete problems.

## **USC Viterbi School of Engineering**

Los Angeles, CA

# Teaching Assistant - CS@SC Summer Coding Camp

May 2023 - June 2023

- Instructed a class of 9 students in VEXcode VR programming and guided them in assembling and operating robots.
- Enable students to tackle pathfinding challenges using brute force techniques, as well as fostering a fundamental grasp of essential graph algorithms such as Breadth-First Search and Depth-First Search.

#### **PROJECTS**

#### **PERSONAL WEBSITE - React**

- Built a robust front-end system using the JavaScript React library along with HTML and CSS.
- Engineered various functionalities based on state changes using React hooks, components and routers.
- Ensured an optimal user experience by implementing responsive design, adapting seamlessly across various devices.

# FROGGER - C++

- Recreated the classic Frogger game by applying object-oriented design principles and leveraging the SDL 2 library.
- Implemented following the composite design pattern to organize the code, ensuring the program's optimal maintainability and scalability.
- Applied vector math and Axis Aligned Bounding Box concepts to drive the game logic and functionalities.

#### **SAL TICKETS - Java**

- Modeled an online ticket trading system that enables real-time event searching using data obtained via a RESTful API.
- Implemented the front-end system using JavaScript, HTML and CSS, and established connections with the back-end via jQuery.
- Engineered the back-end system in Java, establishing connections with the front-end interface via the HttpServlet class.
- Established connections between Java servlets and the MySQL database, creating a complete data management system.

## **TICKET PROCESSING SYSTEM – Java**

- Developed a multi-threading system in Java that enables ticket transactions concurrently using Locks and Semaphores.
- Utilized the Gson library for parsing user inputs, transaction schedules, and gent specifications.

#### **HONORS**

#### The Engineering Honor Society of TAU BETA PI

Invited to join on Sep 22, 2023, with initiation scheduled for November 12, 2023.

## The Honor Society PHI KAPPA PHI

• Invited to join on Sep 20, 2022; Initiated on Oct 07, 2022.

## Dean's List of Viterbi School of Engineering

• 2022 - 2023

#### **HOBBIES**