Wang-Hsing Chen

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EDUCATION

University of Southern California | Los Angeles, CA   **May 2025**
B.S. in Computer Science | GPA: 4.0/4.0

TECHNICAL SKILLS

Programming Languages: C/C++, JavaScript, Java, Python
Web Development: React, HTML, CSS, jQuery, Firebase
Others: Git/GitHub, Android Studio, JUnit, Visual Studio Code, Eclipse, Pycharm

EXPERIENCE

Teaching Assistant | USC Viterbi | Los Angeles, CA   **Aug 2023 - Present**
- Mentor over 275 Introduction to Algorithms and Theory of Computing students.
- Grade exams and deliver constructive commentary to students for continuous improvement.
- Conduct weekly office hours to provide in-depth guidance on topics in amortized analysis, divide and conquer, greedy algorithms, graph algorithms, dynamic programming, network flow, linear programming and NP-complete principles.

Teaching Assistant | USC Viterbi | Los Angeles, CA   **May 2023 - June 2023**
- Instructed a class of 9 CS@SC Summer Coding Camp students in VEXcode VR programming.
- Enabled 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

FIND MY CLASSMATES – **Java/ Android Studio** (**Team**)
- Secured the Best Team Award among 60 competing teams and showcased our product in front of the panel.
- Developed an Android application that facilitates USC Viterbi students in connecting and engaging with their peers by enabling class specific classmate discovery and communication features via java and firebase.
- Implemented dynamic class display functionality featuring adaptable department and class tabs based on database records.
- Engineered a comprehensive full-stack system for registration, rating, and classmate interaction. Users can enroll, leave comments, and engage with peers through the user interface supported by dynamic updates from the back-end system.

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

TICKET PROCESSING SYSTEM – **Java** (**Individual**)
- 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.

PERSONAL WEBSITE – **JavaScript/ React** (**Individual**)
- 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.

HONORS

The Engineering Honor Society of TAU BETA PI
The Honor Society PHI KAPPA PHI