

# Wang-Hsing Chen

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## EDUCATION

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**University of Southern California | Los Angeles, CA**

**Expected Graduation: May 2025**

**B.S. in Computer Science | GPA: 4.0/4.0**

**Honors:** The Engineering Honor Society of TAU BETA PI, The Honor Society PHI KAPPA PHI, The Viterbi Dean's List (x3)

**Relevant Courses:** Data Structures and Object Oriented Design, Introduction to Algorithms and Theory of Computing, Principles of Software Development, Software Engineering, Introduction to Computer Systems, Applied Python

## TECHNICAL SKILLS

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**Programming Languages:** C/C++, JavaScript, Java, Python, Assembly

**Web Development:** React, HTML, CSS, jQuery, Firebase

**Others:** Git/GitHub, Android Studio, JUnit, Visual Studio Code, Eclipse, Pycharm, Unix/Linux Shell

## EXPERIENCE

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**USC Viterbi | Course Producer | Los Angeles, CA**

**Jan 2024 - Present**

- Mentor over 100 Introduction to Introduction to Computer Systems students.
- Conduct weekly office hours to provide in-depth guidance on topics in bitwise operations, assembly languages, as well as more comprehensive studies about caches, including organization flow, addressing, pipelining and heap management.

**USC Viterbi | Course Producer | Los Angeles, CA**

**Aug 2023 - Dec 2023**

- 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.

## PROJECTS

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**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 database.
- 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.