Zhixuan (Erin) Zhu
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EDUCATION

University of California – Los Angeles
B.S. in Computer Science and Engineering (Cumulative GPA: 3.6/4.0) *Sept. 2019 – Dec. 2023*
M.S. in Computer Science *Expected Graduation: June 2026*

WORK EXPERIENCES

UCLA Learning Assistant (LA) Program - Learning Assistant Los Angeles, CA
University of California, Los Angeles, (UCLA) *September 2022 - March 2023*
- Worked as a pedagogy head learning assistant in Computer Science 31 and Computer Science 32 to help students study and foster collaborative and inclusive learning environment
- Learned and utilized a variety of pedagogy strategies while teaching (including using closed questions to check for understanding, using wait time, using a mix of open and closed questions, redirecting questions) and improved and revised strategies based on feedback
- Helped with organizing events, meetings to help new learning assistants with pedagogy skills
- Suggested teaching strategies to improve the teaching pattern to better foster collaboration in students

CURRICULUM PROJECTS

Computer Science 130: Software Engineering C++
- Implemented a basic http web server using C++ on Google Cloud with appropriate logging and monitoring as a group.
- Applied many useful skills such as API design, automated testing, Google authorization API, peer code review.

Computer Science 174A: Introduction to Computer Graphics JavaScript
- Led a JavaScript group project of a 3D car racing game with collision detection, physical simulation, and texture mapping.
- Built all of the models and textures used in the game.
- Implemented features that allow the player to control the car with keyboard input, detects the collision between the car and prizes and obstacles, changes player camera views, calculates player scores and displays the best score, and restarts the game.

Computer Science 35L: Software Construction C, Python
- Implemented a script shuf.py in Python 3 that works instead of randline.py in Python 2, a C function frobcmp that sorts obfuscated data without deobfuscating and reobfuscating data, and a script topo_order_commits.py that prints the topological order of a git.

Computer Science M152A: Introductory Digital Design Laboratory Verilog
- Implemented a mini rogue-like game in a group of two using a Spartan-6 FPGA board in Xilinx ISE design suite 14.1.
- The game enables movement using Pmod JSTK joystick modules, buttons, and switches on the board. Scores are displayed on the 7-segment LED display on the board, and the game states are displayed through UART USB transmission from the board to the computer.

Computer Science 111: Operating System Principles C
- Implemented a low-level code of the pipe (|) operator in shells, a round robin scheduling for given workload and quantum length, a hash table implementation safe to use concurrently, and a MiB ext2 file system all in C.

Computer Science 131: Programming Languages OCaml, Java, Prolog, Scheme, Python
- Implemented a simple parser generator in OCaml, a multithreaded gzip compression filter in Java, an arithmetical-logical puzzle KenKen solver in Prolog, a Scheme code difference analyzer in Scheme, and a prototype application server herd with asyncio in Python.

Computer Science 33: Introduction to Computer Organization C
- Implemented a dynamic memory allocator, i.e., another version of malloc and free commands, in C.

PROGRAMMING SKILLS

Proficiency in C, C++, Python, JavaScript, Java, Verilog, Arduino, Shell Script, HTML, CSS, Matlab.
3D modeling using Vectorworks and metashape.