Tao Wang

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EDUCATION

Bachelor of Science, Electrical Engineering. Cumulative GPA: 3.87.

University of California, Davis. Expected Graduation: June 2024.

Applying for 2024-2025 UC Davis Master's Program in Electrical Engineering.

RELATED COURSEWORK

Completed Courses: Applied Probability. Programming Microcontroller in C. Signals and Systems. Circuit 1. Circuit 2. Analysis of Bipolar and MOS Transistors.

Future Courses (2023 - 2024 Spring): Performance Engineering of Software System (Graduate Level). Stochastic Processes (Graduate Level). Internet of Things Design. Computer Architecture (Assembly Programming). Operating System. Embedded System. Digital System with Verilog. Communication Electronics.

TECHNICAL SKILLS

Software: Data Structure and Algorithm. Git version control.

Programming: Proficient in C, C++, Python, MATLAB. Familiar with RISC-V Assembly, Simulink.

Languages: Fluent in English and Mandarin.

WORKING EXPERIENCE

Calculus and Physics Tutor, Academic and Tutoring Center, UC Davis,

9/20/22 - Present

- Organized tutoring session plans each week that decided what topics to cover in the private session and strategies to motivate tutees.
- Coached Calculus and Physics students individually on Calculus 1 and General Physics materials to improve their understanding of the course.
- Motivated tutees with a positive attitude when dealing with low test scores and guiding them to fix the problems one by one.

PROJECTS

Bouncing Ball Game with Texas Instruments's MSP-EXP432 Microcontroller,

9/20/22-12/20/22

- Utilized the built-in Timer in the microcontroller to display a ball at different x-y coordinates of the LCD screen in desired frequency. This simulated the movement of a continuously moving ball.
- Programmed a ball game in the C language based on the moving ball. The user could resize a rectangular object at the middle of the screen using a joystick. The moving ball bounced off the rectangular object and the edge of the screen when their pixels overlap.

Music Follower Robot with Texas Instruments's Robotics Systems Learning Kit (RSLK) 1/9/23 - 3/24/23

- Soldered an analog sound receiver circuit that had two microphones turning sound waves into voltage waveforms.
- Programmed the RSLK Robot in the C Language with another group member to digitally sample the microphone's voltage waveform then compare the voltage from each microphones. The robot would move in the direction of the microphone with a higher voltage.
- Applied a digital bandpass filter in the RSLK's program to reduce noise in the sample.