Zachary Gray

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Education

California Polytechnic State University, San Luis Obispo

Bachelor of Science in Electrical Engineering

- Overall GPA: 3.78
- Expected Graduation Date: June 2026
- Relevant Coursework Taken:
  C Programming with Hardware, Computer Design, Assembly Language Programming, Continuous Time Signals and Systems, Computer Science (Python)
- Relevant Coursework to be taken before Internship starts:
  Microcontroller System Design, Digital Electronics, Analog Electronics, Semiconductor Devices
- President's List freshman and sophomore years

Skills

Digital Design, C language, Python, RISC-V Assembly Language, Hardware Verification, SystemVerilog, RTL Design, Computer Arithmetic, Debugging

Projects

32-bit RISC-V Microcontroller

- Designed PC, ALU, CU, Registers, CSR with SystemVerilog in Vivado
- Utilized RARS to write RISC-V assembly code that successfully ran on the MCU

FPGA Slot Machine

- Created an FSM based slot machine game using SystemVerilog on an FPGA board

Arduino Anti-Theft Device

- Designed a motion detection device to sound an alarm when it sense motion
- Integrated an infrared remote controller to arm the device

For videos and the code behind these projects, please see: https://z4chh.github.io/projectsite/

Experience

Power and Energy Society, Industry Coordinator, San Luis Obispo, CA

- February 2023 – Present
  - Organized tour of local PG&E substation
  - Collaborated with fellow officers to run the society

Arena Sports, Youth Soccer Coach, Issaquah, WA

- June 2022 – March 2023
  - Ran classes of 8-14 soccer players
  - Trained new hires on coaching and people skills