Yiju Li

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Last Revised: 2023/02/07. To access my latest resume, please click this link. For further insights into my profile, kindly visit YijuLi.info.

As a dual-degree student at the University of California, San Diego, pursuing Computer Engineering and Applied Mathematics, I bring a thorough understanding of both software and hardware development to the table. My passion for hardware has driven me to constantly seek opportunities to improve my skills in this field. My strong foundation in mathematical modeling and problem-solving, acquired through my studies in Applied Mathematics, makes me a valuable asset in hardware engineering.
I approach every task with a professional demeanor and am dedicated to delivering outstanding work. My hands-on experience as a software engineer intern at Shengmu Life and UBTech has honed my technical skills and ability to work in a team. Additionally, my experience as a QA engineer intern at CloudGame has enhanced my attention to detail and problem-solving skills. I am enthusiastic about the opportunity to apply my skills and continue to grow as a hardware engineer in a new role.

Education

Bachelor of Science in Computer Engineering
Bachelor of Science in Applied Mathematics
University of California, San Diego
Sep 2020 - current

Technical Skills

The skills listed below have been thoroughly understood and consistently applied in my professional experiences and personal projects.

Hardware Related

- Computer Engineer: Digital Electronics and Circuit, Computer Architecture Design(ISA)
- HDL: SystemVerilog, VHDL
- EDA tools: Modelsim(Questa), Quartus

Software Related

- Programming languages: Java, Python, C++(GLSL), C, JavaScript, HTML(WXML), CSS
- Focused Topics: Advanced Data Structures and Algorithms, Reinforcement Algorithms, Neural Network, CV, Kernel Programming, Computer Graphics
- Proficient Technologies: MySQL, MongoDB, React.js, Spring, Django, Express.js, Amazon Web Services (AWS), Alibaba Cloud, Linux, Git, DevOps
- Agile methodologies: Scrum, Kanban

Hardware Engineering Project

For a comprehensive understanding of my professional endeavors, I invite you to visit my website at YijuLi.info/Projects, where more projects are available for review.

- **MIPS-inspired Microcontroller Design with SystemVerilog**
  Designed a MIPS-inspired Instruction Set Architecture featuring 9-bit instruction length and 16 registers, created an efficient assembler, developed control unit, ALU, and memory components, verified the microcontroller design with a custom testbench and synthesized the SystemVerilog code in Quartus for hardware demonstration.
- **Circuit Optimizer**
  The project optimized Boolean functions for digital circuit design by simplifying and minimizing a two-level description of the function using various algorithms and heuristics.
- **DSP System Design with VHDL**
  Implemented a DSP system hardware design in VHDL, designed and developed digital components such as filters and signal processing blocks, and verified functionality and performance through simulation and testing.

Professional Experience

- **Software Engineer Intern** in Shengmu Life, 2022 Summer, 10 weeks.
  Developed and collaborated on Agile development of WeChat apps with WXHL and JavaScript and dynamic, user-friendly Android apps using Java and Android SDK, ensuring app stability, performance and meeting business requirements.
- **Software Engineer Intern** in UBTech, 2021 Summer, 8 weeks.
  Developed a web-application using JavaScript and React to enhance functionality and user experience, actively working with the team in daily stand-up meetings to modify components for accessibility and simplify the programming process for easier use by individuals of all ages.
- **Quality Assurance (QA) Engineer Intern** in CloudGame, 2020 Summer, 10 weeks.
  Designed and executed test plans, identified and reported software bugs, working closely with the development team in daily meetings to ensure a seamless and stable user experience for the end-users, and performed pressure tests to evaluate product stability and reliability under heavy usage conditions.