

# Jinlin Wu

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## EDUCATION

University of Electronic Science and Technology of China (UESTC)

Chengdu, China

Major: Design of Integrated Circuit and Integrated System | GPA: 3.8/4.00 | Average Score: 86.35/100

Sep. 2019 - Jun. 2023

## SKILLS & QUALIFICATIONS

Qualifications: TOEFL-88

Programming Language: C, Python, VHDL, Verilog HDL, ARM and RISC-V Assembly Language, Tex

Research Tools: Linux, Windows; Hspice, Vivado, Synopsys Design Compiler, Synopsys Prime Time, Synopsys IC Compiler, GCC, CUDA, Matlab, Modelsim;

## RESEARCH & PROJECT EXPERIENCE

Design of an efficient dot product computing unit for Posit

03/2022-07/2022

- Decided the research topic and set up the research plan.
- Worked as the main researcher in designing the architecture of the computing unit, which supports parallel computing for low-precision and variable output precision by using shared multipliers and multicycle adders.

Design and Tape-out of Microcontroller Unit Based on E902 RISC-V Soft Core

10/2021-01/2022

Guided by Prof. Yiwen Wang

- Wrote the RTL design. Designed a SPI flash controller for the MCU.
- Implemented simulation and verification of the design. Optimized the synthesis result.

National College Integrated Circuit Competition

03/2022-08/2022

Subject: Design of Speech Recognition and Wireless Signal Processing SoC Platform Based on Arm Processor

Guided by A.P. Letian Huang

- As the leader of a 3-person team, took charge of architecture of design, verification of hardware modules and the integration of the whole system.
- Designed and developed crucial hardware modules like I/Q hardware demodulator, audio filter, SNR calculator, PWM DAC, MFCC extractor and BP network accelerator. Wrote software drivers for peripherals, and the functional software that operates the system.

Achievement:

Won the Third Prize in the national competition.

Design and Implementation of a Cortex-M0 Based SoC for a Games Console

04/2021-06/2021

Guided by A.P. Letian Huang

- Defined the hardware and software architecture of the SoC and implemented and verified the hardware of the SoC. Build the SoC by using Cortex-M0 softcore, AHB bus matrix, UART controller, keyboard controller, etc.
- Designed a DMA that improves the display quality and lessens the computing burden of the CPU by taking over the job of data moving and the controlment of LCD.
- Wrote drivers of the peripherals and the code of the game software.