# Hanle Zhang

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#### EDUCATION

#### University of Chinese Academy of Sciences

Bachelor of Computer Science and Technology

Advisor: Prof. Yungang Bao

University of California, Berkeley

Visiting Student in EECS Department GPA: 4.00/4.00

CS152(Computer Architecture), CS170(Algorithms), CS188(Artificial Intelligence)

## ACADEMIC EXPERIENCE

## "One Student One Chip" Program Engineering Intern

July 2022-Aug. 2022

Jan. 2024-May. 2024

Sept. 2021-July. 2025 (expected)

Ranking: 3/102 GPA: 3.95/4.00

Beijing Institute of Open Source Chip

- Completed some functions of a software ISA emulator using C: achieved a simple debugger and implemented some functions of C library
- Learned to develop a RISC-V processor using Verilog

## FPGA Verification Platform Engineering Intern

July 2023-Aug. 2023

Institute of Computing Technology, Chinese Academy of Sciences

- Finished an HLS version of neural network LeNet running on an FPGA board, served as a DUT for an FPGA-based HLS verification platform
- Used Vitis to synthesize IP core from LeNet's HLS design, started Linux on ZYNQ Sidewinder board and wrote bit stream on configurable fabric
- Trained parameters using Python version LeNet, wrote a memory mapping program to load parameters to FPGA

#### **International Summer School**

Aug. 2023

Institute of Computing Technology, Chinese Academy of Sciences

- Attended lectures on cloud computing systems, SMT formal verification and deep learning
- Participated in seminars on FPGA, Emotion AI and NeRF

#### Projects

## Computer Organization and Design Course Project

Institute of Computing Technology, Chinese Academy of Sciences

- Developed a multi-cycle MIPS processor and a RISC-V processor with Instruction Cache and Data Cache
- Implemented some functions of a DNN accelerator

## Computer Architecture Project

Institute of Computing Technology, Chinese Academy of Sciences

- Co-developed a pipeplined LoongArch processor using Verilog
- Supported exception handling, AXI bus interface, TLB, ICache

## Honors & Awards

First Class Academic Scholarship (Top 5%)

Pacemaker to Merit Student (Top 1%)

National Scholarship Nomination (Top 2%)

Outstanding Student Leader

## SKILLS AND HOBBIES

**TOEFL**: 113 (R29, L30, S25, W29)

Aug. 2023

**Programming:** C, Verilog, Chisel (Some experience with: Python, C++, Golang, HTML, CSS)

Music: Singing, playing traditional Chinese instrument Erhu

Sports: Basketball