# Hanle Zhang

University of Chinese Academy of Sciences, Beijing, PRC, 100049 ► Email: zhanghanle21@mails.ucas.ac.cn / peter.zhang@berkeley.edu

#### EDUCATION

#### University of Chinese Academy of Sciences (UCAS)

Bachelor of Computer Science and Technology

# University of California, Berkeley

Visiting Student in EECS Department

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

GPA: 4.00/4.00

Sept. 2021-July. 2025 (expected)

Ranking: 2/92 GPA: 3.95/4.00

Beijing Institute of Open Source Chip

- Completed some functions of a software ISA emulator NEMU using C language: achieved a simple debugger and implemented some functions of C library string.h and stdio.h
- Developed a multi-cycle 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 LeNet running on an FPGA, which was served as one of the verification examples for a FPGA-based HLS verification platform ENCORE
- Used Vitis to synthesize IP core from LeNet's HLS design, built boot and root, 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, neural networks 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, virtual memory, ICache

## Honors & Awards

Excellent Student in UCAS

The First Prize of Scholarship in UCAS

Nov. 2022

Outstanding Student Leader in UCAS

June 2022

## SKILLS AND HOBBIES

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

Aug. 2023

Programming: C, Verilog, MIPS AL, X86 AL (Some experience with: Python, C++, Chisel, Golang, HTML, CSS)

Music: Singing, playing traditional Chinese instrument Erhu

Sports: Basketball