europass

Bohan Yang

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Work: No.96, JinZhai Road Baohe District School of the Gifted Young, 230026 Hefei (China)

TRANSCRIPT SUMMARY

Major

Microelectronics && Computer Architecture

GPA

4.06 / 4.3

Rank

1 / 29

Toefl

R: 30 L: 26 S: 23 W: 26 total: 105

HONOURS AND AWARDS

National Scholarship

Ministry of Education of the People's Republic of China [12/31/2021]

First Prize of the 13th National College Students Mathematics Contest

Chinese Mathematical Society [12/01/2021]

Yan Jici Talent Class Scholarship

School of Physical Sciences, USTC [12/10/2022]

Qiangwei Ambition Award

School of the Gifted Young, USTC [09/01/2022]

PROJECTS

Digital chip design and tape-out practice

[09/01/2022 – Current]

Design an SoC in a 180nm node and complete the whole process from architecture design to back-end layout and GDSII generation. The SoC is divided into three parts: 8-bit MIPS CPU, systolic array co-processor, and SRAM drive. Using the Synopsys EDAs, I manage to quickly iterate the design and simulate it to confirm the correctness of the function. At present, the layout has been handed over to TSMC.

Five-stage-pipelined RISC-V CPU design and SoC design

[04/01/2022 – 06/01/2022]

Complete the design of a RISC-V SOC and write RTL code to implement it. The SOC includes a classic five-stage pipeline CPU, external serial port driver, switch and LED light driver, etc. In this project, I write assembly code and compile it to do some software tasks like serial port communication and LED light array.

WORK EXPERIENCE

Research Assistant

IIIS, Tsinghua university [10/20/2022 – Current]

City: Beijing
Country: China

Investigate dataflow optimization methods of the spatial accelerator for dynamic neural networks, especially by parallel computing and data reuse, and simulate the implementation using the Gem5 simulator.

University teaching assistant
University of Science and Technology of China [09/01/2022 – Current]

City: Hefei
Country: China

Answer the questions of freshman students in the process of learning the c language, prepare corresponding exercises, and participate in experimental design.
I also review the submitted experiment homework and cooperate with the teacher to complete the assessment task.

Internship
Polar Bear Tech [07/25/2022 – 08/26/2022]

City: Xi'an
Country: China

As a member of the compiling research group, I was devoted to writing convolution and transposing operators in c++ on the Qiming 940 accelerator platform. Verification by generating a large number of instructions is also a part of my job. According to the design scheme of Qiming 930, test samples are generated on a large scale for simulator testing. Meanwhile, I also wrote corresponding generation scripts and continued to explore how to speed up the generation and reduce the occupation of storage space while ensuring sample coverage.

Internship
Microelectronics School, University of Science and Technology of China [05/01/2022 – 07/01/2022]

City: Hefei
Country: China

Implement AI operators on the accelerator platform developed by the group, and optimize the operator components of AI video encoding algorithms.

EDUCATION AND TRAINING

Bachelor Candidate
University of Science and Technology of China [09/01/2020 – Current]

Address: No.96, JinZhai Road Baohe District School of the Gifted Young, 230026 Hefei (China)
Website: http://en.ustc.edu.cn/
Field(s) of study: Computer Architecture | Microelectronics

Summer Camp Outstanding Student
Peking University [07/01/2022 – 09/01/2022]

Address: No.5 Yiheyuan Road, Haidian District Academic Affairs Office, 100871 Beijing (China)
Website: https://www.pku.edu.cn/index.html
Field(s) of study: Computer Architecture
Final grade: A+

Undergraduate Course: *AI Computing Systems*

DIGITAL SKILLS

C++ / C / Python / Linux / Git / Assembly Language (RISCV) / Matlab / Gem5 / Verilog / FPGA development / Cadence EDA Tools / Synopsys Tools

LANGUAGE SKILLS

Mother tongue(s): **Chinese**

Other language(s):

English

LISTENING B2 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2