YIFAN YANG

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Research Field

- Computer Architecture
- Implementation of different algorithms based on FPGAs

EDUCATION

M.Phil. in Microelectronics | ***Advised by: Prof.Jiayi Huang*** Sep. 2024 – Present
The Hong Kong University of Science and Technology (GuangZhou)

B.Eng. in Integrated Circuits Design and Systems Sep. 2020 – Jun. 2024
Huazhong University of Science and Technology CGGPA: 3.88/4.0

- Electronics Courses GPA: 3.92/4.0 for 62-credit Mathematics Courses GPA: 3.97/4.0 for 24.5-credit

WORK EXPERIENCE

Intern (FPGA Engineer) | ***Advised by: SE ENGR Chao Xiao*** Jul. 2023 – Dec. 2023
Shanshui Photoelectronic Technology Co., Ltd. Wuhan, China

- Implemented Ethernet Transmission Algorithms in Kindex FPGA and the bid for the project was successful.

Intern (FPGA Engineer) | ***Advised by: SE ENGR Tao Zhou*** Mar. 2024 – Jul. 2024
Viestar Medical Technology Co., Ltd. Wuhan, China

- Implemented Image Processing Algorithms in Zynq FPGA as part of the confocal endoscope mainframe.

PUBLICATIONS

[C] Y. Yang, Z. Zheng, "ECG signal classification algorithm and circuit design based on deep learning," **ICFTIC (IEEE EI)**, 2024

RELATED PROJECTS

FPGA Embedded Chip Design Competition | ***Advised by: SE ENGR Jianxin Wu*** Aug. 2022 – Nov. 2022
Department of EIC,HUST Wuhan, China

- Designed a bank payment system using Xilinx series FPGA, which has functions for deposit, withdrawal,and balance inquiry, including fingerprint recognition module and VGA display module.

Development of ECG Sensing Based on FPGAs | ***Advised by: Prof. Zhaoxia Zheng*** Dec. 2023 – Jun. 2024
Department of ICDE,HUST Wuhan, China

- Based on the Resnet model, implement CNN in the Pytorch to classify and diagnose different types of ECG signals.Besides, based on the Zynq, implement CNN and ECG classification diagnosis on it, comparing the results with the Pytorch end.

HONORS AND AWARDS

Self Improvement Scholarship of HUST(2021) Honorable Mention of The MCM/ICM (2022)
Excellent Award of National Undergraduate Embedded Chip Design Competition (2022)
Scholarship for outstanding student cadres (2022)
Intel China FPGA Engineer Certificate(2023) **Full Postgraduate Scholarship, HKUST(GZ)**(2024)

SKILLS

Languages: English, Chinese Mandarin(native) **Document Creation**: Microsoft Office Suite, LaTeX, Markdown
Hardware Description Languages: Verilog, Chisel **Programming**: C & C++, Python
Electronics Design Automation Software:Xilinx Vivado, Cadence, SE Modelsim, Quartus II, Chipyard