XIAOLING,YI

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EDUCATION

Fudan University Shanghai, China
M.S. in Microelectronics and Solid State Electronics *Sep 2020 – Jun 2023*
- GPA: 3.58/4: (Rank: NA)
- Research interests: DNN Accelerators Design, DNN Accelerators High-level Modeling, Computer Architecture Design Space Exploration, Electronic Design Automation (EDA)

Fudan University Shanghai, China
B.E. in Microelectronic Science and Engineering *Sep 2016 – Jun 2020*
- GPA: 3.67/4.0 (Rank: 10/120)
- Relevant coursework: Computer Architecture, Design of Integrated Circuits, Principles and Applications of FPGA, Mathematical Statistics and Stochastic Process, Signal and System, Data Structure and Algorithm Design

PUBLICATIONS

- **Xiaoling Yi**, Jiangnan Yu, Zheng Wu, Xiankui Xiong, Dong Xu, Chixiao Chen, Jun Tao, Fan Yang, "NNASIM: an Efficient Event-Driven Simulator for DNN Accelerators with Accurate Timing and Area Models," IEEE International Symposium on Circuits and Systems (ISCAS), 2022.
- Zheng Wu, Wuzhen Xie, **Xiaoling Yi**, haotao yang, ruiyao pu, Xiankui Xiong, Dong Xu, Chixiao Chen, Jun Tao, Fan Yang, "An Automated Compiler for RISC-V Based DNN Accelerator," IEEE International Symposium on Circuits and Systems (ISCAS), 2022.

RESEARCH EXPERIENCE

Fudan University (State Key Laboratory of ASIC & System) Shanghai, China
Research Assistant to Prof. Fan Yang *Jul 2020 – Present*
- AI architecture design based on reconfigurable PE engine and dataflow
- DNN Accelerator functional modeling with accurate timing and area models
- Rocket Custom Coprocessor design and its FPGA prototype implementation
- Rocket Custom Coprocessor microarchitecture exploration

University of Alberta Alberta, Canada
Exchange student *Jul 2018 - Aug 2018*
- Focused on learning academic writing and public speaking

TEACHING

Fudan University Shanghai, China
Teaching Assistant
- Performed TA duties for Fundamentals of Computer Software, Spring 2021 (instructor: Prof. Changhao Yan)
- Performed TA duties for System-Level FPGA Design, Fall 2020 (instructor: Prof. Lingli Wang and Dr. Xuegong Zhou)

SELECTED AWARDS AND HONORS

- First Prize Scholarship, Fudan University (top 5 %) 2021
- National 2nd Prize, China Post-Graduate Mathematical Contest in Modeling (top 15 %) 2021
- National 1st Prize, Integrated Circuit EDA Elite Challenge (top 5 %) 2021
- Outstanding Graduates of Shanghai (top 5 %) 2020
- National 3rd Prize, National College Students Electronic Design Competition (top 20 %) 2019
- First Prize Scholarship, Fudan University (top 5 %) 2019
- Outstanding Student of Fudan University (top 5 %) 2018
- Second Prize Scholarship, Fudan University (top 15 %) 2017, 2018, 2020

REPRESENTATIVE PROJECTS

Airline Crew Scheduling Optimization Model Shanghai, China

Project for China Post-Graduate Mathematical Contest in Modeling *Oct 2021 – Nov 2021*

- Implemented a complete airline crew scheduling model using integer programming and solved the problem with Gurobi
- Organized the model structure, sorted the logic, and set the schedule as the team leader

"Human-Machine Fight in Connect6" Written in Haskell Shanghai, China

Final Project for Introduction to Functional Programming: From C/C++ to Haskell *Sep 2020 – Jan 2021*

- Implemented the game with a intelligent machine player via Haskell and a GUI (Exploited Haskell library: wxWidgets)
- Developed the machine player algorithm

"Mine Game" Developed on FDE Board Shanghai, China

Final Project for System-Level FPGA design *Sep 2020 – Jan 2021*

- Designed the game via Verilog and implement it on the FDE FPGA board developed by Fudan University
- Designed a Matlab GUI for the game and used hardware-software codesign to manipulate the board

Real-Time Temperature and Humidity Monitoring System Design Shanghai, China

Project for Electronic Design Competition *Jul 2019 – Dec 2019*

- Designed the system leveraging a RISCV SoC named HBird-E203-SoC on the Arty Board and Arduino hardware platform
- Deployed the FreeRTOS for Monitoring Application

TECHNICAL SKILLS

Computer and Language Skills

- **Programming languages** & **Software**: C/C++, Chisel, Python, MATLAB, Shell, Verilog, Haskell, Tcl, TVM, Vivado, Modesim, VCS, Design Compiler, ICC
- **Languages**: Mandarin Chinese (native), English (CET6, IELTS: waiting for the result)

ADDITIONAL INFORMATION

Personal Interest

- psychology, badminton