

Yaohui Han

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EDUCATION

Central South University

Major in Applied Physics (Strengthening Academic Program)

Minor in Electronic Science and Technology

Sep.2021 — Present

Grade: 88.6/100 Rank: 2/32

ACADEMIC EXPERIENCE

Chinese University of Hong Kong, Shenzhen

Feb.2024 — Present

- Co-supervised by **Prof. Tinghuan Chen** and **Prof. Tsung-Yi Ho (CUHK)**, as a Research Assistant.
- Research Topic 1: PointNet model for EDA.
- Research Topic 2: LLM for datasheet in EDA

Hong Kong University of Science and Technology, Guangzhou

Jul.2024 — Present

- Supervised by **Prof. Yuzhe Ma**, as a Research Assistant.
- Research Topic 1: AI for Static Timing Analysis.
- Research Topic 2: LLM for floorplan.

Central South University

Jul.2022 — Apr.2023

- Join the group of **Prof. Duan Huang**, as a Research Assistant.
- Design a RISC-V processor called “Chenhui” and its simulator.
- Participate in developing the LDPC functions and its instructions.

PUBLICATIONS

Journal Paper

- [J2] Y. Han, A. Liu et al. "Selecting Workers like Expert for Crowdsourcing by Integration Evaluation of Individual and Collaborative Abilities.", Expert Systems With Applications (**ESWA**), ISSN 0957-4174
- [J1] Y. Han, A. Liu et al. "PUWR-TSSG: A CMAB-based Post-unknown Worker Recruitment Scheme for Three-stage Stackelberg Game in MCS ." (Under Review by INS)

Conference Paper

- [C1] W. Zhang, Y. Han, T. Chen, B. Yu et al. "PointCap: An efficient model for Chip-scale Interconnect Capacitance Extraction" (Under Review by DATE 2025)

Patent

- [P3] D. Huang, Y. Han et al. "A LDPC encoding and decoding computing system based on RISC-V architecture"
- [P2] Y. Han et al. "A combined navigation computing system based on RISC-V architecture" (Under Review)
- [P1] Y. Han et al. "A crowdsensing data auxiliary processing system" (Under Review)

SELECTED AWARDS

Contests

- **Silver Medal** - kaggle competition: Google - Fast or Slow? Predict AI Model Runtime Nov.2023
- **National 1st Prize** - Chinese Undergraduate Electronics Design Contest (**11/20939**) Jul.2023
- **National 1st Prize** - Chinese Undergraduate Physics Experiment Contest Nov.2023
- **National 3rd Prize** - MathorCup Big Data Competition Oct.2023
- **Provincial 1st Prize** - Chinese Undergraduate Mathematical Contest in Modeling Sep.2023
- **Provincial 1st Prize** - Chinese Undergraduate Electronics Design Contest Jun.2023
- **Provincial 1st Prize** - China Undergraduate Physics Tournament Jun.2022

Scholarships and Honors

- **BYD Special Scholarship** - from BYD Company Limited Oct.2024
- **Scholarship for Scientific and Technological Innovation** - from GEM Co.,Ltd Dec.2023
- **Scholarship for Academic Excellence** - from Alumni Donation of CSU Jan.2022
- **First-class Scholarship** - from CSU (**three times**) Jan.2024
- **Outstanding Student** - from CSU Mar.2024
- **Outstanding League Member** - from CSU Mar.2022
- **Outstanding Student Leader** - from CSU Mar.2023

SELECTED PROJECTS

mcspy: A Python package for Mobile Crowdsensing

Jul.2023 — Jul.2024

- Supervised by Prof. Anfeng Liu at CSU.
- Design several functions for mobile crowd sensing such as ϵ -Greedy, UCB algorithms.
- Applied in the Distributed and Edge Computing Laboratory of CSU.

Chenhui: A RISC-V core with LDPC functions

Jul.2022 — Jul.2023

- Under the guidance of Beijing Open Source Chip Research Institute and Institute of Computing Technology of the Chinese Academy of Sciences, called "One Student One Chip" program.
- Use NEMU (based on C) to evaluate my processor (based on Verilog) and finish the front-end design.
- Patent "An LDPC computing system based on RISC-V instruction set" is under review.

Microfluidic biochips synthesis system control program based on STM32

Mar.2022 — Mar.2023

- Supervised by Prof. Zhengchun Liu at CSU and Prof. Honglu Zhang at SJTU.
- Implemented global control of the system and Bluetooth, Modbus, etc.
- Awarded as "Key Support Project of Hunan Province College Innovation and Entrepreneurship Training Plan", "Hunan Province College Student Innovation and Entrepreneurship Outstanding Project".

UAV system based on multiple integrated navigation chip

Mar.2023 — Oct.2023

- Supervised by Prof. Duan Huang at CSU, in collaboration with SJTU.
- Implemented BDS and INS navigation chips on the UAVs.
- Transfer of technology to LCMICRO Corporation.

OTHER EXPERIENCES

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| • President of Astronomy Association | Central South University |
| • Technical Director of Electronics Association | Central South University |
| • Senior Judge | Xunxingke Astronomy Community |
| • Monitor of Top-notch program | Central South University |
| • Volunteer Reviewer | <i>Expert Systems With Applications</i> (Journal) |
| • Volunteer Reviewer | <i>Information Science</i> (Journal) |
| • Volunteer Reviewer | <i>Knowledge-Based Systems</i> (Journal) |

SKILLS

- **Programming:** Python, MATLAB, C, Verilog, LaTeX, Markdown, Tcl, Bash...
- **Software Skills:** Origin, Visio, Keil, CubeMX, Vivado, Spice, Design Compiler...
- **Language:** IELTS 7.0

REFERENCES

Prof. Yuzhe Ma

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Prof. Tinghuan Chen

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Prof. Anfeng Liu

Professor

School of Computer Science and Engineering, Central South University

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Prof. Honglu Zhang

Associate Professor

School of Electronic Information, Shanghai Jiao Tong University

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