

Changyan Chen

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EDUCATION

SHANGHAI JIAO TONG UNIVERSITY

M.ENG IN MICRO-ELECTRONIC
ENGINEERING

Sept. 2022 - Mar. 2025 | Shanghai
Cum. GPA: 3.79/4.0

SHANGHAI JIAO TONG UNIVERSITY

BS IN MICRO-ELECTRONIC SCIENCE
AND ENGINEERING

Sept. 2018 - Jun. 2022 | Shanghai
Conc. in School of Electronic Information
and Electrical Engineering

COURSEWORK

GRADUATE

Advanced Digital Integrated Circuit
SoC Design Methodology
Advanced Computer Architecture
SystemVerilog Design and Verification
Neural Network and Machine Learning
Art in Layout Design (*Teaching Asst. in SJTU*)

UNDERGRADUATE

Data Structure and Algorithm
Signals and Systems
Digital Signal Processing
Digital Integrated Circuit
Analog Integrated Circuit

SKILLS

PROGRAMMING/SCRIPT

Verilog • C++ • Python
TCL • SystemVerilog • Matlab

EDA tools:

Cadence: Virtuoso Innovus Genus
Synopsys: Design Compiler, IC Compiler
Mentor: Calibre
Modelsim • Xilinx Vivado

Computer Arch Simulators:

ZSIM, DRAMSim

RESEARCH/WORK EXPERIENCE

SJTU BIO-CIRCUIT AND SYSTEM LAB | DIGITAL TEAM MEMBER

Sep 2019 - Sep 2021 | Shanghai

- Differential Routing Flow Automation for Security Circuits
- High Performance and Variation-Resilient Level Shifters Design
- Custom Library Design and Characterization
- Re-configurable Logic Design and Automation

HISILICON | SYSTEM ENGINEER

July 2022 - Present | Shanghai

- Memory Subsystem Design and Optimization
- Cache Modelling and Optimization
- Dynamic Programming Model/Runtime Verification

PUBLICATION

SJTU BIO-CIRCUIT AND SYSTEM LAB | EMBEDDED DESIGN, ALGORITHM DESIGN, HARDWARE ACCELERATION

Sep 2022 - Mar 2025 | Shanghai

- [C. Chen](#), Q. Zhang, S. Sheng, H. Huang, Y. Zhang and Y. Li, "LungHeart-AtMe: Adventitious Cardiopulmonary Sounds Classification Using MMoE with STFT and MFCCs Spectrograms", IEEE International Conference on Artificial Intelligence Circuits and Systems (AICAS), pp. 1-5, Jun, 2023.
- [C. Chen](#), R. Pan, H. Huang, Q. Zhang, X. Jiang, Y. Zhang, J. Zhao and Y. Li, "PSCS: A Physiological Sound Compression System Based on Compressive Sensing with Self-Adaptive Compression Ratio and Optimized DCT", IEEE International Symposium on Circuits and Systems (ISCAS), pp. 1-5, May, 2024.
- [C. Chen](#), R. Pan, H. Huang, Q. Zhang, X. Jiang, Y. Zhang, J. Zhao and Y. Li, "Live Demonstration: A Wearable Cardiopulmonary Healthcare System for Real-term Monitoring of Multi-modal Physiological Signals", IEEE International Symposium on Circuits and Systems (ISCAS), pp. 1-5, May, 2024. ([Best Demo Award](#))
- Q. Zhang†, [C. Chen](#)†, S. Yuan, J. Zhang, J. Yuan, H. Huang, Y. Zhang, R. Pan, X. Jiang, J. Zhao, Y. Li, Y. Yin, L. Zhao, G. Wang and Y. Lian, "Meta: Data Compression and Event Detection Grand Challenge 2024 With SPRSound Dataset", IEEE Data Descriptions, Under revision.
- L. Li, J. Li, [C. Chen](#), Y. Zhang, J. Zhao and Y. Li, "Generalized Rapid TFT Modeling (GRTM) Framework for Agile Device Modeling With Thin-Film Transistors", IEEE Journal on Flexible Electronics, pp. 190-196, May, 2024.
- Y. Ji, Y. Zhang, [C. Chen](#), J. Zhao, F. Rokhani, Y. Ismail and Y. Li, "A 0.4V, 12.2pW Leakage, 36.5fJ/Step Switching Efficiency Data Retention Flip-Flop in 22nm FDSOI", IEEE Transactions on Very Large Scale Integration Systems, Accepted for publication.

AWARDS

- Integrated Circuit EDA Design Elite Challenge Competition, National Second Prize and Cadence Enterprise Prize, Nov 2019. Demo Award at the IEEE International Symposium on Circuits and Systems (ISCAS), May, 2024