

CHING-YI LIN

chingyil@andrew.cmu.edu

EDUCATION

Ph.D. Candidate in Electrical Computer Engineering

August 2018 - Present

Carnegie Mellon University, Pittsburgh

Master degree received on Dec 2022

Prospectus exam passed on Jan 2023

Advisor: Marc Dandin (2020-Present), Daniel Bankman (2020), Radu Marculescu (2018-2019)

B.S. in Electrical Engineering

August 2013 - June 2017

National Tsing Hua University (NTHU), Hsinchu, Taiwan

WORK EXPERIENCE

Apple

May 2021 - Aug 2021

Digital Circuit Design Intern

Customized SRAM cell design and evaluation in schematic-level

PUBLICATION

Measuring and modeling macrophage proliferation in a lab-on-CMOS capacitance sensing microsystem

May 2023

• Kyle Smith, Ching-Yi Lin, Yann Gilpin, Elizabeth Wayne, Marc Dandin

2023 *Frontiers in Bioengineering and Biotechnology*

Non-Linear CNN-Based Read Channel for Hard Disk Drive With 30% Error Rate Reduction and Sequential 200-Mbits/s Throughput in 28-nm CMOS

February 2023

Yuwei Qin, Ruben Purdy, Alec Probst, Ching-Yi Lin, Jian-Gang (Jimmy) Zhu

2023 *IEEE Journal of Solid-State Circuits (JSSC)*

Tracking the Effects of Tumor Treating Fields on Human Breast Cancer Cells in vitro Using a Capacitance Sensing Lab-on-CMOS Microsystem

October 2022

Yann Gilpin, Ching-Yi Lin, Mats Forssell, Siyang Zheng, Pulkit Grover, Marc Dandin

2022 29th *IEEE International Conference on Electronics, Circuits and Systems (ICECS)*

ASIC Implementation of Non-linear CNN-based Data Detector for TDMR System in 28nm CMOS at 200Mbits/s Throughput

September 2022

Yuwei Qin, Ruben Purdy, Alec Probst, Ching-Yi Lin, Jian-Gang (Jimmy) Zhu

IEEE Transactions on Magnetics

Model Personalization for Human Activity Recognition

March 2020

Ching-Yi Lin, Radu Marculescu

The Fourth International Workshop on Smart Edge Computing and Networking (SmartEdge 2020)

BOOK AND BOOK CHAPTERS

CMOS Bioelectronics: Current and Future Trends

December 2022

A chapter in *Bioelectronics: Materials, Technologies, and Emerging Applications*, CRC Press, 2022

ISBN: 9781032203133

SKILL

Programming Language and Tools: C, C++, Python, RISC-V, HTML, MATLAB, MySQL

Circuit design toolkit: Virtuoso, HSPICE, Genus, Innovus, Fusion 360