

Yizhou XU

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Personal Website: [About Me - Yizhou Xu's Blog \(egogreenal.github.io\)](https://egogreenal.github.io)

Education

University of Chinese Academy of Sciences (UCAS) Sep 2021 - Present

Bachelor of Engineering (Expected 2025)

Major: Electronic Information Engineering

GPA: 3.98/4; Ranking: 1/20; Major GPA: 3.99/4

Massachusetts Institute of Technology (MIT) Feb 2024 - May 2024

Special Student Program 2024 Spring

Department: Electrical Engineering and Computer Science (EECS)

GPA: 5.0/5.0

Academic Experiences

AI-assisted RFIC Design July 2024 ~ Present

Institution: Rice University

Director: Prof. Taiyun Chi

- Served as a research assistant. Developing new electro-magnetic & circuitry design flow for radio-frequency integrated circuits (RFIC) with the assistance of artificial neural networks (ANN).

Monolithically Integrated Electronic-Photonic Circuit Design June 2024 ~ July 2024

Institution: Institute of Semiconductors, Chinese Academy of Sciences

Supported by: Beijing Natural Science Foundation (First Applicant)

Director: Prof. Nan Qi

- Monolithically integrated silicon-photonics MZM driver design with GlobalFoundries 45nm SiPh SOI process. A simulation-based first-author paper has been published on *IEEE ICTA 2024* from this project.

Wideband Power Amplifier Design for mm-Wave Application Feb 2024 ~ June 2024

Institution: Massachusetts Institute of Technology

Director: Prof. Ruonan Han

- An undergraduate research project. High power back-off and wideband distributed Doherty power amplifier (DDPA) design for mm-wave application (designed with Intel 16 FinFET process).
- Some DC supporting circuit (digitally-controlled OPAMP) design with Intel 16. (taped-out May 2024)

Ultra-wideband Driver Circuits Design for Optical Communication Dec 2023 ~ Present

Institution: Institute of Semiconductors, Chinese Academy of Sciences

Supported by: Beijing Natural Science Foundation (First Applicant)

Director: Prof. Nan Qi

- Ultra-wideband differential distributed amplifier (DDA) design for optical driver with GlobalFoundries 90nm SiGe process. (taped-out June 2024)

Design of Bandgap Reference for Optical Communication Circuits**Aug 2023 ~ Sep 2023**

Institution: Institute of Semiconductors, Chinese Academy of Sciences

Director: Prof. Nan Qi

- Designing a Bandgap Reference for optical communication circuits upon GlobalFoundries 45nm SOI process (without tape-out).

Publications

Y. Xu et al., A 64-GBaud 64-QAM Optical Coherent Transmitter with Monolithically Integrated Driver and I/Q Modulator in 45-nm SOI CMOS, *2024 IEEE International Conference on Integrated Circuits, Technologies and Applications (ICTA)*, Hangzhou, China. [Accepted]

Honors and Awards

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|--|---------------------|
| 2023 Mathematical Contest in Modeling, Finalist (Top 3%) | Feb 22, 2023 |
| 2022 China Collegiate Programming Contest, Guangzhou Site, Gold Medal | Nov 13, 2022 |
| The 46th ICPC Asia Regional Contest Jinan, Gold Medal | Nov 14, 2021 |
| National Scholarship | Oct 2023 |
| UCAS Peacemaker to Merit Student (Top 1%) | June 2023 |
| UCAS First-Class Scholarship (Top 5%) | Nov 2022 |

Extracurricular Activities

Teaching Assistant: Non-linear Electronic Circuits **Aug 2024 ~ Jan 2025**

- Teaching EDA tools like ADS at University of Chinese Academy of Sciences.

Leader of New Media Group, Student Union of Chinese Academy of Sciences **July 2022 ~ July 2023**

- Managed content publishing for new media platform of Student Union at University of Chinese Academy of Sciences.

Student Coach of Algorithm Association at University of Chinese Academy of Sciences **July 2023 ~ Aug 2024**

- Organizing weekly, winter and summer training sessions, as well as annual school algorithm competition. Established an [Online-Judge System](#) at University of Chinese Academy of Sciences.

Skills

Software: Cadence Custom IC Design Suite, Keysight ADS, Ansys HFSS, AMD Vivado

Language: Mandarin (Native Speaker) / English (Fluent)

Programming: C / C++ / Python / MATLAB / Wolfram / Cadence SKILL

TOEFL: 103 (R27, L30, S22, W24)

TEST DATE: July 20, 2024

GRE: 322+4.0 (V152, Q170, AW4.0)

TEST DATE: July 21, 2023