

## EDUCATION

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### Peking University

B.S. in Applied Physics, Department of EECS

Last year CGPA: 89/100 (WES-calculated: 3.81/4.00)

### NO.1 Middle School affiliated to Central China Normal University

Outstanding Graduate

Beijing, China

Sep 2022–Jul 2026

Wuhan, Hubei, China

Sep 2019–Jul 2022

## RESEARCH EXPERIENCE

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### Backside Power Delivery Network(BSPDN) for Carbon Nanotube FET

Tutor: Prof. Rongmei Chen

Peking University

Sep 2024–Present

- Applying BSPDN to low-temperature thin-film transistors
- Novel structures of Monolithic 3D design using the knowledge in BSPDN and Carbon Nanotube FET(CNFETs)
- Experiments on novel methods to do wet etch

## INTERNSHIP EXPERIENCE

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### Shanghai IC Research and Development Center (ICRD)

Tutor: Chen Li

Shanghai, China

July 2024–Aug 2024

- Investigation on the difference between industrial and academic IC fabrication process
- Experience on large scale industrial IC fabrication

## PUBLICATIONS

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- **Title:** Backside Power Delivery Network (BSPDN) in coordination with low-temperature thin-film transistors(**First Author**)
- **Status:** Submitted

## COURSE PROJECTS

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- **16bit High-speed Adder Design:** In the course “Digital IC and Systems”, I successfully design a 16bit RCA adder and draw its layout. See the project at [adder](#).
- **Sparse Matrix-Dense Matrix Multiplication accelerator:** In the course “High-level Chip Design”, I develop a hardware accelerator for SpMM. See the project at [SpMM](#).
- **Boolean Circuit Matching:** In the course “Modeling, Analysis and Optimization for Computing System”, I develop a work using SAT tools. See the project at [BCM](#).
- **NoGo Game:** In the course “Introduction to Computation”, my classmate and I develop a game using C++, the whole interface is designed and programmed by myself. See the project at [Nogo Game](#).

## RELEVANT COURSES

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- **Circuit Design:** Principles and Design of Digital Systems(Honor Track); Principles of Analog Circuits(Honor Track); Advanced Analog Integrated Circuits Design; Advanced Digital Integrated Circuits Design
- **Chip Design:** High-level Chip Design
- **Device & Physics:** Physics of Semiconductor; Integrated Circuit Devices; Integrated Circuit Manufacturing Technology; Quantum Mechanics
- **Signal Processing:** Signals and Systems (Honor Track)
- **Computing:** Introduction to Computation; Data Structure and Algorithm; Optimization for Computing System

## SKILLS

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- **Equipment for Device Fabrication:** E-Beam Vapor System/ Scanning Electron Microscope(SEM)/ Reactive Ion Etching(RIE)/ Laser Direct Writing/ Step Profiler/...
- **Programming:** C++ / Verilog/ MATLAB/ Python(seldom used by myself)
- **CAD tools:** Virtuoso/ Xilinx Vivado / Xilinx Vitis HLS(beginner)
- **Languages:** Mandarin(Native)/ English(TOEFL: 106)/ French(beginner)
- **Other skills:** Github/ Latex(Overleaf)

## SCHOLARSHIPS AND AWARDS

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- Tiktok Scholarship for EE Student 2023–2024
- Having been selected as a member of the inaugural Experimental Class in Electronic Information Science 2023–2026
- EECS Cup Table Tennis Competition Women’s Singles Champion 2023,2024
- Peking University Freshman Cup Table Tennis Competition Top 8 2022

## EXTRA-CURRICULUM OUTREACH

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- Captain of EECS Table Tennis team at Peking University Sept, 2023–Sept,2024  
*Led the team to achieve the best rank in history.*
- Rural education support program in Jiangxi Province, 2024 Aug, 2024  
*Teaching ancient Chinese poetry to left-behind children*
- Member of EECS Basketball team at Peking University Sept, 2024–Present

## APPENDIX

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If you would like to learn more about my background and research, feel free to explore my personal website at <https://zixuan-haily-zhou.github.io/>