

M.S. student researching **EDA for VLSI physical design**, with interests in **Agentic EDA** and **self-evolving agents**. Strong algorithmic foundation with a **Codeforces rating of 2413 (Grandmaster)**. Received the **Zhejiang Government Scholarship** for two consecutive years and was named a **2024 Zhejiang Outstanding Graduate**.

Education

Present	Joint Master’s Program, ShanghaiTech University / Institute of Computing Technology, CAS
2024.09	M.S. Student in Electronic Design Automation; ECOS Group at ICT, CAS; supervised by Dr. Biwei Xie in Prof. Yungang Bao’s team
2024.06	School of Information and Electronic Engineering, Zhejiang University of Science and Technology
2019.09	B.Eng. in Software Engineering, transferred from Sino-German Mechanical Engineering in 2021

Honors & Awards

2025.12	EDAthlon 2025	Champion
2024.06	2024 Zhejiang Outstanding Graduate	
2023.12	Zhejiang Government Scholarship	
2023.05	ACM-ICPC China Shaanxi Invitational Contest	Silver Medal
2022.12	Zhejiang Government Scholarship	
2021.12	ACM-ICPC Asia Nanjing Regional Contest	56/638, Silver Medal
2021.04	13th Lanqiao Cup C/C++ Programming Contest	Zhejiang First Prize
2020.10	CCPC Zhejiang Collegiate Programming Contest	Silver Medal
2017.02	NOI Winter Camp	Silver Medal
2016.10	NOIP Advanced Group	Zhejiang First Prize

Research Experience

- **Routability-Driven Global Placement for VLSI**
 - Built a heuristic optimization baseline based on EGR, reproduced and analyzed cell inflation methods driven by early routing congestion estimation, and established a routability optimization baseline for algorithm comparison.
 - Designed a congestion optimization model based on differentiable Steiner trees, transforming discrete congestion costs into continuous differentiable penalties and integrating them into the nonlinear objective of an analytical placement.
 - Explored a routability-driven global placement framework combining heuristic baselines and differentiable models to balance placement quality, optimization stability, and convergence efficiency under complex constraints.
- **3D Scene Rendering Optimization Based on Gaussian Splatting**
 - Designed an optimization pipeline for 3D Gaussian Splatting scene rendering, introducing ZoeDepth depth estimation and SAM semantic segmentation into the training process to provide depth and semantic priors.
 - Designed a joint loss function combining RGB, depth, and smoothness regularization to improve rendering quality and depth consistency in complex scenes.
 - Conducted ablation experiments on the WAT (World Across Time) scene dataset; the depth-smoothness constrained model improved PSNR compared with vanilla 3DGS.

Internships

2024.09	EDA Intern @ Beijing Institute of Open Source Chip
2024.05	Participated in iEDA-related development and research, building hands-on engineering experience in chip design automation. Studied iEDA flows and toolchains, establishing a practical foundation for graduate research in EDA. Joined ICCAD Contest 2024 Problem A, designed and implemented an ABC-based automated optimization flow for logic netlist optimization, and explored reinforcement learning for logic synthesis.

2024.05	Game Development Intern @ Happy Interactive Entertainment
2024.02	Independently developed a multiplayer online shooting game demo, covering the design and implementation of both client-side and server-side core components. Learned and applied Unity, C#, Lua, and C++ in a production-oriented game development workflow.
2024.02	Research Assistant @ Zhejiang Lab
2023.12	Studied frontier papers and reproduced research work related to 3D Gaussian Splatting and Human Gaussian methods.

Projects

– ICCAD Contest 2024 Problem A

- Built an ABC-based automated optimization flow for logic netlist optimization and designed an evaluation framework around the black-box cost estimator.
- Constructed a logic synthesis action space with reinforcement learning, exploring the impact of transformations such as resub, rewrite, refactor, and balance.
- Designed and implemented Genlib Maker to bridge the gap between the official JSON cell library and ABC's .genlib/.lib inputs, and improved search efficiency with incremental iterative optimization.

– Multiplayer Online Shooting Game Demo

- Developed the client and server core features of a multiplayer shooting game, covering character control, combat flow, and online synchronization.
- Designed and implemented a hierarchical state machine to manage idle, movement, shooting, and other character states, improving maintainability and interaction smoothness.
- Implemented multiplayer synchronization with a frame synchronization mechanism, and built the server communication architecture using epoll and sockets to support multi-client connections and data exchange.

Skills & Languages

Programming	C++, Python, C#, C, Java, JavaScript
EDA & ML	Physical design, logic synthesis, analytical optimization, PyTorch
Tools & Platforms	Git, Linux, Docker, L ^A T _E X, MySQL
Languages	English (CET-6), German

Campus Experience

2023.09	Vice President, ACM Association
2021.09	Prepared problems and wrote editorials for campus programming contests.
2023.05	Coach, Informatics Olympiad Teaching
2020.09	Taught data structures and algorithms to middle and high school students. Coached students who earned two Shanghai CSP-J/S first prizes, one NOIP first prize, and one Beijing CSP-S second prize.