Boyi Li

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Education

Zhejiang University Sep. 2023 – May. 2027
Bachelor of Science in Computer Engineering *Haining, Zhejiang*

- **Relevant Coursework:** Data Structures (CS 225), Analog Signal Processing (ECE 210), Computer Systems & Programming (ECE 220), Linear Algebra with Computatio (MATH 257), Basic Discrete Mathematics (MATH 213), Probability with Eng App (ECE 313), etc.

University of Illinois at Urbana-Champaign Sep. 2023 – May. 2027
Bachelor of Science in Computer Engineering *Champaign, Illinois*

- **Relevant Coursework:** Machine Learning (CS 446), Applied Machine Learning (CS 441), Artificial Intelligence (CS 440), Computer Systems Engineering (ECE 391), Digital Systems Laboratory (ECE 385), Intro Differential Equations (MATH 285), etc.

Teaching Experience

Writing Assistant Sep. 2024 – Dec. 2024
RHET 101 *Haining, Zhejiang*

- Provided academic writing support for undergraduate students in STEM disciplines
- Offered feedback and guidance on the structure, logical flow, and technical clarity of research papers and technical reports.

Research Experience

Research Intern Sep. 2025 – Present
Rehg Lab *Champaign, Illinois*
Advisor: *Prof. James M. Rehg (Computer Science and Industrial and Enterprise Systems Engineering, UIUC)*

- Conducted research on MLLMs and Pediatrics Foundation Models.

Research Assistant Sep. 2023 – Aug 2025
CVNext Lab *Haining, Zhejiang*
Advisor: *Prof. Gaoang Wang (ZJU-UIUC Institute, Zhejiang University)*

- Conducted research on Embodied AI and Multi-Agent Systems.

Summer Research Jun. 2024 – Jul. 2024
Intelligent Creativity & Interaction Lab, ICI Lab *Hangzhou, Zhejiang*
Instructor: *Prof. Liuqing Chen (College of Computer Science and Technology, Zhejiang University)*

- Conducted research on Intelligent Design and Interaction.

Publications

Zhonghan Zhao, Wenhao Chai, Xuan Wang, **Boyi Li**, et al. *See and Think: Embodied Agents in Virtual Environments*. ECCV 2024.

Boyi Li, Zhonghan Zhao, Der-Horng Lee, Gaoang Wang. *Adaptive Graph Pruning for Multi-Agent Communication*. ECAI 2025. Spotlight Paper.

Service

Workshop Organizer CVPR 2026
The 2nd CVPR 2026 Workshop on Computer Vision for Children

- Host and organize the world's first computer vision challenge for pediatric gait analysis that focuses on developing human pose and motion computer vision algorithms for pediatric gait analysis, with applications in automated clinical assessment and disease prediction for children.

Projects

VAST: VR-Assisted 3D based on Unity VR engine Sketching Tool

- **Role:** Project lead. Responsible for the majority of code development and testing.
- This study aims to lower the professional threshold of design sketching so that ordinary users can directly complete sketches in VR environments with simple strokes and generate accurate models through model recognition technology.

AeroPredict: Transformer-Based Real-Time Flight Delay Predictor

- **Role:** Project lead. Responsible for dataset curation and model architecture design.
- Designed an end-to-end transformer-based real-time flight delay prediction model for delay classification and duration probability regression.
- Curated a flight delay dataset (AeroPredict-10K) with 10,000 cleaned records of real flight data via a designed comprehensive data pipeline, including airports, schedules, weather, etc.
- Benchmarked deep model against traditional baselines (Random Forest, GBM) on accuracy, AUC, and MAE metrics.

Unix-like Operating System

- **Role:** Project lead. Primarily responsible for the UART, VirtIO, and File System components.
- Developed a Unix-like operating system supporting user program execution, virtual memory management, and system calls, using C, RISC-V assembly, and Sv39 paging.
- Implemented virtual memory subsystem with multi-level page tables, demand paging, and secure memory isolation for user processes.
- Implemented process abstraction and ELF loader, enabling dynamic program loading, trap-based user/kernel transitions.

BioElectro Glove: Mental Health Screening through Connective Tissue Signals

- **Role:** Tech Lead. Responsible for product architecture design and model training.
- Based on fascia theory, this project explores depression diagnosis via hand bioelectrical signals, leveraging the physiological link between emotional states, connective tissue health, and oxidative stress, enabling a non-invasive and repeatable detection method.

Honors and Awards

Gold Award 2025
China International College Students' Innovation Competition (CICSIC) 2025

Gold Award 2025
Singapore Division Contest of China International College Students' Innovation Competition (CICSIC-SG) 2025

Honorable Mention 2024
Mathematical Contest In Modeling (MCM)

Third-Class Academic Excellence Scholarship 2024 – 2025
Zhejiang University

Student Innovation and Entrepreneurship Award 2024 – 2025
Zhejiang University

Student Innovation and Entrepreneurship Award 2023 – 2024
Zhejiang University

Student Outstanding Academic Achievement Award 2024 – 2025
Zhejiang University

Languages and Skills

Chinese: Native

English: Proficient (TOEFL; 97)

Programming Languages: C/C++, Python, C#, JavaScript

Hardware & Embedded Systems: FPGA, Intel Quartus