Jishen Lin (林继申)

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Educations

Tongji University – School of Computer Science and Technology　　　　　　　　　2022 – 2026

Bachelor's Degree in Software Engineering, Specialization in Machine Intelligence

GPA: - / 5.00 (Percentage: -)　　　Rank: - / - (Top -%)　　　English Proficiency: CET-6

Honors and Awards

First-Class Scholarship for Outstanding Students, Tongji University (Top 5%)	2022 / 2023
"Outstanding Student" Award, Tongji University (Top 5%)	2022 / 2023
Social Activity Scholarship, Tongji University (Top 5%)	2022 / 2023
Tang Zhongying Scholarship for Moral Education, Tongji University (Top 1%)	2022 – 2026
Gold Award in Shanghai and National Bronze Award in the 2024 China International College Students' Innovation Competition	2024
Gold Award in International Genetically Engineered Machine Competition (iGEM)	2024

Scientific Research

Mask-Wearing Detection System for Access Control Based on Ultralytics　　　2023 / 03 – 2024 / 03

This project developed a real-time mask-wearing detection system using the YOLOv8 model, covering data collection, annotation, model training, and optimization. The solution integrated mask detection into the access control system, enabling real-time monitoring and alerts. **The project was successfully completed and received an "Excellent" rating in the 2024 final review by the School of Electronics and Information Engineering.**

Lightweight Network for 3D Image Sensor Signal Enhancement　　　　　　　2024 / 03 – 2025 / 03

(1) Multi-scale Kernel Design: The network dynamically adjusts kernel sizes to capture both local details and broader features, modeling dependencies at various scales.

(2) Model Complexity Analysis: Pruning and sparsification techniques reduced redundant computations, optimizing performance through L1 regularization and gradient calculations.

(3) Lightweight Design: Streamlined network structures reduced computational complexity and memory usage while maintaining high performance.

(4) Real-world Testing: The model was validated on real-time sensor data, demonstrating improved image quality and efficiency on resource-constrained devices.

This project ranked first in the 2024 project proposal defense at the School of Software Engineering, Tongji University. A related paper is under preparation and expected to be submitted to the 2025 IEEE International Conference on Multimedia and Expo (ICME).

Internships

Changjiang Pension Insurance Co., Pacific Insurance Group – IT Department　　2024 / 07 – 2024 / 08

(1) Front-end Development for Mid-platform Management System: Led development using Vue.js, integrating Vue Router and Element UI. Developed key modules like user management and role permissions.

(2) Due Diligence Assistant Development: Implemented speech-to-text by integrating third-party recognition services with the Dify language model to automate meeting minute generation and analysis.

(3) Prompt Optimization for Dify Model: Enhanced prompt design and multi-turn dialogue features to improve the

system's understanding of queries and contextual relevance, leading to more accurate and intelligent responses. **In this internship, I not only deepened my technical expertise in front-end development, but also enhanced my communication and teamwork skills, gaining a better understanding of project requirements and.**

Projects

Teamfight Tactics：A game developed with Cocos2d-x 2023
This project implemented core game features using object-oriented principles and was open-sourced on GitHub, receiving positive feedback. I gained in-depth knowledge of Cocos2d-x and experience in community management. **The project won the Bronze Award at the 2024 China International College Students' Innovation Competition (Tongji University) and the Bronze Award in the 9th Shanghai Student Cultural and Creative Works Exhibition.**

Oral Hub: Children's dental intelligent diagnosis and treatment platform 2024
This project developed an AI-based early screening platform for pediatric malocclusion, integrating data from over 100 regions in China into a database. It created intelligent screening models and provided educational content, advancing pediatric oral health initiatives with scalable solutions. **The project won the Gold Award in Shanghai and National Bronze Award in the 2024 China International College Students' Innovation Competition.**

MinmusOS: The design and implementation of an operating system based on Rust language 2024
MinmusOS is a multi-tasking operating system developed in Rust for the Intel IA-32 (x86) architecture. It implements kernel-space and user-space separation, task scheduling, memory management, and device drivers, leveraging Rust's memory safety to address issues in traditional OS design. **This project helped me gain a foundational understanding of the Rust programming language, operating system principles, and Linux-related toolchains, significantly improving my system development skills.**

Atlas.Y: Advanced targeting and localization assistance system for yeast 2024
Atlas.Y is a molecular tag design software for optimizing yeast subcellular localization, developed for the iGEM competition. As team lead, I guided the project and represented Tongji University in Paris. The frontend was built with Vue3.js, Vuetify, and Element Plus, while the backend handled database management and RESTful APIs. We also integrated a deep learning model for intelligent tag optimization and developed a Wiki to present our project. Wiki: https://2024.igem.wiki/tongji-software. **This project won the Gold Medal in the iGEM Competition, and I attended the 2024 iGEM Jamboree in Paris, France as the Student Leader to present the project.**

Technical Skills

Programming Languages: C/C++, C#, Java, Python, HTML, CSS, JavaScript, TypeScript, Dart, SQL, Swift, Rust
Frameworks and Libraries: Node.js, Vue.js, ASP.NET, Spring Boot, Cocos2d-x, Qt, Flutter, OpenCV, SwiftUI
Data Analysis: PyTorch, TensorFlow, Scikit-learn, NumPy, Matplotlib
Development Tools: Git, GitHub Actions, CMake, Makefile, Docker, Linux, Shell, Bash, LaTeX, Typst

Student Activities

Class Monitor, Class 1, Software Engineering, School of Computer Science and Technology (2022 cohort)
Awarded "Outstanding Volunteer" by Freshman Institute (2022-2023), with nearly 200 hours of volunteer service
President, Huawei Technology Club, School of Computer Science and Technology, Tongji University
2024 Huawei Developer Program (HSD) Tongji University Campus Ambassador
Member, Zhongying Public Welfare Promotion Association, Tongji University
Senior Peer Mentor, Academic Development and Guidance Center & Student Growth Center, Jiading Campus