

Yuzhe Shi

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Education

Imperial College London (ICL)

MSc Computing (Artificial Intelligence and Machine Learning)

London, UK

Sept. 2025 - Present

South East Technological University (SETU)

Software Engineering ("3+1" China-Ireland Cooperation Programme)

Waterford, Ireland

Sept. 2024 - Jun. 2025

Degree Bachelor of Science (Honours) in Software System Practice

Nanjing University of Information Science and Technology (NUIST)

Software Engineering ("3+1" China-Ireland Cooperation Programme)

Nanjing, Jiangsu, China

Sept. 2021 - Jun. 2024

Degree Bachelor of Engineering

Academic *Cumulative GPA: 89.9 / 100, Ranking: 2 / 80*

Honours

- First-class scholarship (<15%) for 2021-2022 academic year.
- First-class scholarship (<15%) for 2022-2023 academic year.

Start-up Experience

Co-founder, CTO

Nanjing Shisho Guard, Inc.

Nanjing, Jiangsu, China

Mar. 2023 - Apr. 2024

- Co-founded a blockchain security company, focusing on blockchain security auditing and consulting services.
- Developed and deployed a **blockchain security auditing system** utilizing blockchain and graph neural network technologies.
- Responsible for **full-stack development**, including frontend interaction and backend processing.
- Granted a Chinese patent: **A Blockchain Address Identity Inference Method and System Based on Deep Graph Neural Network** (co-inventor).

Professional Projects

Leverage Online Judge

Developer/Maintainer

 bkmashiro/BP-Judger

May 2021 - Aug. 2025

- This system is currently used by the university's ACM/ICPC team for training and competition, as well as by students for homework submission.
- Created a platform similar to LeetCode, featuring compilation, execution, resource monitoring and limitation, and evaluation capabilities for multiple languages.
- Built with TypeScript, C++, leveraging technologies like Linux namespace, Cgroups, Docker, etc.
- Refactored the backend judger to be more scalable and maintainable.

SnapSphere

Bachelor's Final Year Project / Developer

 bkmashiro/fyp-backend

Jan. 2025 - Apr. 2025

- Built an AR metaverse photo-sharing platform allowing users to experience images in their original spatial context, compare perspectives, and explore interactive virtual environments. Integrated blockchain for copyright protection and privacy.

Shimmy WASM Runtime for Serverless Evaluation

MSc Individual Project, Imperial College London

 bkmashiro/shimmy-wasm-go

May 2026 - Present

- Built a Go/WASI runtime for executing multi-language WebAssembly workloads inside AWS Lambda-style serverless environments.
- Ported Python scientific computing support, including NumPy, to WASI to enable reproducible sandboxed evaluation.

Latent Watermark Robustness in Diffusion Models

Independent Study Option, Imperial College London

 bkmashiro/iso-report

Feb. 2026 - Jun. 2026

- Researched robustness of latent watermarks in diffusion models under image transformations, latent perturbations, and model-level attacks.

Redscript

 bkmashiro/redscript

Developer

Mar. 2026 - Present

- Designed and implemented a TypeScript-like language compiler that emits Minecraft `mcf` datapacks.
- Built typed language tooling for datapack development, reducing boilerplate in command generation and project structure.

Faster CRUD

 [bkmashiro/nest-faster-crud](#)

Developer

Jul. 2022 - Dec. 2023

- Designed and maintained a decorator-based, code-first, end-to-end type safe framework for quickly and flexibly implementing CRUD endpoints using TypeScript.
- Automatically generates frontend forms based on backend definitions, needs no configuration by default, but fully customizable.

DL-MA-Sim

 [xuxl-dev/sim-unity](#)

Developer

Nov. 2023 - Aug. 2024

- A reinforcement learning simulation environment for multi-agent car piloting and traffic light timing based on Unity.
- Developed a reinforcement learning algorithm for optimizing multi-agent car piloting and traffic light timing.

Shisho Guard

Developer

Nov. 2023 - Apr. 2024

- A blockchain transaction security auditing system, utilizing graph neural networks to identify malicious transactions.
- Responsible for the development of the backend, including the implementation of the graph neural network model.

Papers

1. Cheng, H., Cui, M., & Shi, Y. (2024). **STAM-LSGRU: a spatiotemporal radar echo extrapolation algorithm with edge computing for short-term forecasting**. *Journal of Cloud Computing*, 13(1), 100.
2. Liu, W., Bilal, M., Shi, Y., & Xu, X. (2025). **Distributed service caching with deep reinforcement learning for sustainable edge computing in large-scale AI**. *Digital Communications and Networks*, 11(5), 1447–1456.
3. **Latent Rules Without Rewards: Unsupervised Environment Identification for Continual RL**. Submitted anonymously to a peer-reviewed venue; currently under review. Developed a continual RL agent that learns a latent rule vector z_{rule} encoding environment-level structure without task labels or rewards.

Awards

1. **First Prize** of the 17th National College Student Information Security Competition Aug. 2024
2. **First Prize** of the 15th Service Outsourcing Innovation and Entrepreneurship Competition for Chinese College Students Aug. 2024
3. **Second Prize** of the 16th National College Student Information Security Competition Aug. 2023
4. **First Prize** of the 18th “Challenge Cup” National College Students Extracurricular Academic Science and Technology Works Competition, Jiangsu Provincial Selection Oct. 2023

Extracurricular Activities

Developer & Administrator of NUIST Online Judge System Dev Team

Sept. 2022 - Aug. 2025

Member of NUIST ACM/ICPC Team

Sept. 2022 - Sept. 2023

Skills

Programming Languages	TypeScript, Python, C#, JavaScript, C++, CUDA, Java, Visual Basic
Frameworks	Nest.js, Vue.js, Nuxt.js, PyTorch
Tools	L ^A T _E X, Typst, Unity, Photoshop, Vegas Pro, After Effects, git, Linux
Languages Proficiency	English: IELTS Overall: 8.0 (L: 9.0, R: 9.0, W: 7.0, S: 7.5), Japanese: Limited Working Proficiency
Interests	Baking and cooking, Petting cats