

Zhu Yufan

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Yufannnn

https://yufannnn.



Education

- Aug 2021 – May 2025 **National University of Singapore**
B.Sc in Computer Science with 2nd Major in Statistics, Focus Area: Artificial Intelligence
GPA: 4.5/ 5.0
- Feb 2019 – Dec 2020 **Eunoia Junior College**
A Level result: AAAA/A

Scholarship and Awards

- 2023 Honor List of Student Tutors for Excellence in Teaching
- 2021-2025 NUS Science and Technology Merit Scholarship Recipient
- 2016-2020 MOE School-based Scholarship (SM1 Scholarship) Recipient

Research Publications

- 2024 **A Personalized Learning Tool for Physics Undergraduate Students Built On a Large Language Model for Symbolic Regression**
Yufan Zhu, Zi-Yu Khoo, Jonathan Sze Choong Low, Stephane Bressan.
In Proceedings of the 2024 IEEE Conference on Artificial Intelligence.

Employment History

- May 2024 - August 2024 **Machine Learning Research Engineer Intern, A*STAR**
Conducted QA, model training, and compatibility checks for ML on homomorphically encrypted data. Skills: software testing, API testing, ML, data security.
- Feb 2024 - May 2024 **AI Engineer Intern, KiWi Augmented Retail Technology**
Led a team of three to develop a pipeline for automatic poster generation using Stable Diffusion and LLM. Skills: backend API development, microservice design, object recognition, and product management.

Relevant Experience

- May 2024 - Aug 2024 **Research Assistant, National University of Singapore**
Participated in a paper on Artificial Intelligence Generated Content in Marketing with PhD student Bruce Yang, supervised by Professors Li Xiaofan and Qiao Dandan, under CP2107 Independent Introduction to CS Research (Odyssey).
- July 2024 - Present **Research Assistant, Nanyang Technological University & A*STAR**
Participated in developing a Quantum Enhanced Machine Learning research project supervised by Professor Gu Mile of NTU and Dr. Jayne Thompson of A*STAR.
- May 2023 - Present **Student Researcher, National University of Singapore**
Undergraduate Research: Worked on Symbolic Regression with LLMs under Professor Stephane Bressan and Dr. Khoo Zi-Yu, achieving an A+ grade. Final Year Project (Ongoing): Developing an FHE Model for Evaluating LLMs on MAMBA Architecture, supervised by Professor Xiao Xiaokui and Dr. Jin Chao from A*Star.
- Aug 2022 - Present **Teaching Assistant, National University of Singapore**
Conducted weekly tutorials and labs, graded assignments, and held consultations for CS1101S (Programming Methodology), CS2100 (Computer Organization), and CS2106 (Introduction to Operating Systems).
- Nov 2022 - Present **Student Tutor, Raffles Institution Boarding School**
Organize events and provide academic and living support to boarders. Assist in upgrading the boarding school management system.

Project Experience

Ongoing	<div><div></div><div>Design Your Own Module Collaborating with Gtriip, a startup tech company, to develop an AI chatbot for hotel management using RAGflow, under the supervision of Dr. Prabhu at NUS.</div></div>
2023	<div><div><div></div><div>Bayesian Stroke Prediction (CS3263 - Foundation of AI) Led a team of three to develop a Bayesian modeling approach for stroke prediction, which won the Best Project Award in CS3263 under Professor Leong Tze Yun.</div></div><div><div></div><div>Morning Duty Tool and Night Duty Tool, Raffles Institution Boarding School Led a team of three to develop web and desktop tools to streamline task management for student tutors at Raffles Institution Boarding School, including daily roll calls, morning checks, and prep checks.</div></div><div><div></div><div>TutorPro (CS2103T - Software Engineering) Led a team of four to create a desktop software solution for private tutors, simplifying administrative tasks and enhancing workflow efficiency.</div></div></div>
2022	<div><div><div></div><div>Personal Portfolio Website Developed a personal portfolio website using HTML, CSS, and JS, with Cloudflare and AWS services such as S3 and CloudFront, showcasing my personal experiences and interests.</div></div><div><div></div><div>AI Agent for "Breakthrough" (CS2109s - Introduction to AI and ML) Designed an AI agent for the "Breakthrough" board game, employing advanced algorithms, such as iterative deepening minimax search, for strategic gameplay.</div></div></div>

Volunteer Experience

Aug 2019	<div><div></div><div>Programming Mentor for Underprivileged Kids Taught a basic programming language, Scratch, to primary students from low-income families, enhancing their digital literacy.</div></div>
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Skills

Languages	<div><div></div>English (proficient), Mandarin Chinese (proficient)</div>
Programming Languages	<div><div></div>Python, Java, C++, C, R, JavaScript, HTML, CSS, Bash, LaTeX, Markdown</div>
Databases	<div><div></div>MySQL, PostgreSQL, MongoDB, SQLite</div>
Web Development	<div><div></div>HTML, CSS, JavaScript, React, Node.js, Django, Flask</div>
Machine Learning and Data Science	<div><div></div>NumPy, Pandas, PyTorch, TensorFlow, Scikit-Learn, OpenCV, Stata</div>
DevOps and Tools	<div><div></div>Git, Docker, JIRA, Linux, AWS Services (EC2, S3 etc.), Google Cloud Platform</div>
Other Skills	<div><div></div>Academic research, teaching, technical writing, project management</div>