# XIYUAN YANG

Github: xiyuanyang-code

Online Resume: https://xiyuanyang-code.github.io/resume/

#### **EDUCATION**

### Shanghai Jiao Tong University

Shanghai, China

Bachelor's degree, School of artificial intelligence

09/2024 - present (Still freshman year)

GPA: 4.14/4.3 (Ranked 1 out of 62)

Score: 94.0/100

Scholarships: Zhiyuan Honor Scholarships (first 5%)

• Comprehensive Programming Practice: 100/100

• Linear Algebra (Honor): 98/100

• Fundamental of Programming (Honor): 98/100

• College Physics I (Honor): 96/100

• Introduction to Artificial Intelligence: 95/100

• Mathematical Analysis II (Honor): 95/100

17 courses achieved A/A+, including all major-related courses, with 9 courses earning A+.

# High school affiliated to Nanjing Normal University

Nanjing, China 09/2021 - 06/2024

## TECHNICAL PROJECTS

# AlphaBuild: Generating Formulaic Alphas on a Wider Range of Stock Data

Leading AlphaBuild as the final project of course AI1803, an RL-based methodology using PPO to optimize factor mining based on AlphaGen, achieving superior backtest performance by leveraging smaller, parallel factor pools and PCA for final factor selection.

#### Data\_Structure\_Awesome (C++)

https://github.com/xiyuanyang-code/Data-Structure-Awesome

C++ implementations of various data structures and classic algorithms. As the final project for **CS0501H** (with ACM Honor Class students), I implemented several STL containers, including std::vector, std::list, std::priority\_queue, std::linked\_hashmap and std::map.

#### **Vosk-Based Voice Translation** (Python)

https://github.com/xiyuanyang-code/voice\_translation

Developed a Vosk-based Chinese-English Bilingual Speech Recognition Application that implements real-time speech-to-text functionality, accurately transcribing spoken language across both Chinese and English in a dynamic, real-time environment.

#### My Technical Blog (HTML)

https://xiyuanyang-code.github.io

Maintainer of my technical blog. I regularly publish technical content focusing on computer science and AI. To date, I have authored over 120 articles with a cumulative word count exceeding 400,000 words.

Active GitHub committer (xiyuanyang-code) with 20+ open-source repositories. I build and open-source user-friendly tools I personally find useful, driven by a passion for engineering and open source.

# Skills

**Programming Languages**: Python (Proficient), C++ (Proficient), C, HTML, CSS, JavaScript, Rust.

Tools: Git, LaTeX, Shell, Docker.

Python Modules: Torch (Proficient), Numpy, Pandas, Matplotlib.

ML & DL: Familiar with Deep Learning architectures and model training techniques.

Languages: Chinese (native), English (fluent, CET-4: 611).

#### Research

My research interests lie in Multi-Agent Systems and LLM Reasoning.

# Awards and Certifications

**Zhiyuan Honor Scholarships** (first 5%)

2024

# **Honorable Mention in MCM**

2025

Honorable Mention, COMAP Mathematical Contest in Modeling / Interdisciplinary Contest in Modeling (MCM/ICM).

2025-C: Models for Olympic Medal Tables.