# **Haotian Shan**

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### **EDUCATION**

# Shanghai Star-river Bilingual School

Feb. 2021 - June 2025

GPA: 4.617

# **ACTIVITIES**

#### Researcher & Developer, Rowing Performance Prediction

Dec 2022 - Present

- Authored "Rowing Performance Prediction Using Recurrent Neural Network," leveraging data from Concept2 rowing machines to forecast performance metrics, published in the school's journal, "Veritas"
- Developed website rowingtrainer.com, utilizing affiliate marketing and search engine optimization (SEO) to scale user engagement, resulting in hundreds of monthly users

#### Data Scientist, Kaggle

May 2021 - Present

- Ranked top 0.53% of the Kaggle community, shared datasets and their analysis with over 150k people
- Consulted by M.L. engineers and Ph.D. students wanting to include my datasets in their projects

#### Researcher and Engineer, Shanghai Adolescents Science and Technology Innovation Contest

Jan. 2024 - Mar. 2024

- Developed a fully autonomous, omnidirectional water rescue bot integrated with computer vision techniques (YOLOv8 algorithm), utilizing camera data to optimize its path for victim rescue
- Won first place, received two special awards, and a 2000 RMB reward from institutes including "Shanghai Society of Naval Architects and Marine Engineers"
- Published a paper in SPIE journals (ISSN: 0277-786X), submitted to the EI Compendex database

#### President, AI Club

Sep. 2022 - Present

- Hosted a world weather prediction competition on Kaggle with over 50 participants from 4 countries, encouraging students to experience solving real-life problems using AI
- Led 21 members to develop an OLS regression model that addresses procrastination by predicting AP homework completion time, developed a mini-app used by the student body
- Invited a senior AI Engineer from TikTok to share insights about Deep Learning

#### President, Tencent AI

Jul. 2022 – Aug. 2022

- Guided by Tencent engineers, utilized sound preprocessing technology and AI models to generate a song
  used to help preserve the Beijing Central Axis cultural heritage of China
- Contributed to the Beijing Central Axis' recognition as a UNESCO World Heritage in July 2024

#### **AWARDS**

2021-2022 China Thinks Big, Global Team Showcase 3rd and National 1st

2021 Chinese National 2nd-level Rowing Athlete

2021 Excellence Award at Asian International Youth Clarinet Competition

2022-2023 United States of America Computing Olympiad, Gold Division

2023 Honorable Award, 2023 ARML Power Round I

2023 Gold, British Physics Olympiad Round 1

2023-2024 Conrad Challenge China Round, Bronze Metal

2024 John Locke Institute Essay Competition Short-listed

# **Community Service**

# Principal Clarinetist, Music Festivals and Charity Shows

May 2023 - Present

 Performed as a tenor in a quartet at various events, including kindergarten charity events and community performances, with 300+ attendees per show

# Letter Exchange Ambassador

Aug. 2022 - Present

 Exchanging over 20 heartfelt letters each year with left-behind children at Liuquan No.1 Middle School in lowincome Henan Province