

Chai Shao Yang

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Education

Anglo-Chinese Junior College	2024 – 2025
<ul style="list-style-type: none">• RP: 70 (J1 Promotional Exam)• Subjects: H3 Game Theory, H2 Physics, H2 Computing, H2 Mathematics, H2 Economics, H1 General Paper	

Co-Curricular Activities

STEM Council Vice-President, String Ensemble, ETPS Scholar, ACJC	2024 - 2025
<ul style="list-style-type: none">• Led workshops to convey scientific concepts to children with ASD through exploration of science, art, and music.• Set and vetted computing questions for the CB Paul Science Quiz.• Performed at Singapore Pavilion at World Expo in Osaka, Japan.	
Robotics Vice-Chairperson, Fuhua Secondary School	2020 - 2023
<ul style="list-style-type: none">• Organised and facilitated key CCA events such as Secondary 1 Robotics Workshop and CCA Open House.• Guided juniors by providing information on robotics concepts and good practices.	

Experience

Student Researcher, Nanyang Technological University	April 2024 – Feb 2025
<ul style="list-style-type: none">• Designed an integrated system using Arduino, Raspberry Pi, and computer vision to automate the monitoring and prediction of spinach growth for urban agriculture.• Built regression and logistic models and performed feature sensitivity analysis.• Analysed sensor and plant data to identify ideal environmental parameters, informing precision agriculture strategies for enhanced yield.	
Teaching Assistant, School of Robotics (SOR) Pte. Ltd.	Dec 2023 - Jan 2024
<ul style="list-style-type: none">• Developed teaching and curriculum materials for the First Lego League, building a strong foundation for programming and good engineering practices.• Designed and customised hands-on robotics activities for kids at the Robotics Lab in KidZania.	

Skills

Programming Languages: Python, C + + , Javascript
AI and Robotics: Pytorch, Scikit-learn, Lego Mindstorms, Arduino, Raspberry Pi
Web Development: HTML/CSS, Node.js, Flask, Bootstrap
Data Analytics: Numpy, Pandas, Matplotlib, Seaborn

Awards

Principal's Honour Roll	2025
Singapore Physics League - Silver Award	2025
International Mathematical Modeling Challenge - Honourable Mention	2025
International Mathematical Modeling Challenge (Singapore) - High Distinction	2025
International Elementz Fair - Silver Award	2025
National Olympiad in Informatics - Silver Award	2025
Singapore Young Physicists' Tournament - Distinction	2025
World Robot Olympiad International Türkiye - Senior 29th	2024
World Robot Olympiad Singapore - Senior 1st	2024
Wan Fook Weng Award (top of the cohort)	2024
H2 Computing Book Prize	2024