

# Chai Shao Yang

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## Education

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<b>Anglo-Chinese Junior College</b>	2024 – 2025
• RP: 70 (J1 Promotional Exam)	
• Subjects: H3 Game Theory, H2 Physics, H2 Computing, H2 Mathematics, H2 Economics, H1 General Paper	

## Co-Curricular Activities

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<b>STEM Council Vice-President, String Ensemble, ETPS Scholar, ACJC</b>	2024 - 2025
• 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.	
<b>Robotics Vice-Chairperson, Fuhua Secondary School</b>	2020 - 2023
• 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

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<b>Student Researcher, Nanyang Technological University</b>	April 2024 – Feb 2025
• 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.	
<b>Teaching Assistant, School of Robotics (SOR) Pte. Ltd.</b>	Dec 2023 - Jan 2024
• 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

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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

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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