

ACSL Junior Contest Preparation

Fall 2026

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Bio

Mr. Changzheng Rao is an experienced software engineer specializing in the design and development of high-performance, low-latency trading systems. He is also a dedicated computer science educator who has taught competitive programming since 2015, with a focus on the American Computer Science League (ACSL) and the USA Computing Olympiad (USACO).

Under his guidance, ACSL teams have achieved strong results at national levels. Many of his students have qualified for the ACSL Finals, with one earning a medal. His USACO students have advanced to the Silver, Gold, and Platinum divisions. Several became USACO finalists, and one later earned a medal at the International Olympiad in Informatics (IOI).

In Fall 2026, Mr. Rao hopes to offer ACSL Junior Division contest preparation at Ray Chinese School. If the course is offered, it would help students build a strong foundation in computer science, develop systematic problem-solving skills, improve their programming proficiency, and learn effective contest strategies.

中文简介

饶长征老师是一位资深软件工程师,专注于高性能、低延迟交易系统的设计与开发。他同时也是一位长期致力于青少年计算机科学教育的资深教师。自2015年以来,他一直从事信息学竞赛教学,主要辅导美国计算机科学联赛(ACSL)和美国计算机奥林匹克竞赛(USACO)。

在他的指导下,多支ACSL参赛队伍在全美竞赛中取得优异成绩。多名学生晋级ACSL总决赛,其中一名学生获得奖牌。他所指导的USACO学生也先后晋级银组、金组和铂金组。多名学生成为USACO决赛选手,其中一名学生后来在国际信息学奥林匹克竞赛(IOI)中获得奖牌。

2026年秋季,饶老师希望有机会在瑞华中文学校开展ACSL Junior Division竞赛辅导课程。课程的顺利开设,将帮助学生扎实掌握计算机科学基础知识,培养系统化的问题解决能力,提高编程水平,并学习有效的竞赛策略。

Experience

ACSL Regular Season Performance Highlights

Season	Division	Overall rank
2021–22	Junior 3	9th place of 65 teams
2022–23	Intermediate 3	20th place of 116 teams
2022–23	Junior 3	10th place of 75 teams

ACSL Finals Performance Highlights

Season	Division	No. of Students Advancing to ACSL Finals
2021–22	Junior	4
2022–23	Junior	6
2022–23	Intermediate	6
2023–24	Junior	2 (including 1 medalist)
Total		18 Finals appearances

Introduction to ACSL Junior Contest Prep

This course prepares students for the American Computer Science League (ACSL) Junior Division contests. ACSL combines computer science concepts, logical problem-solving, and programming challenges, giving students an opportunity to develop practical skills while participating in a nationally recognized competition.

The course is designed primarily for students in Grades 6–9. Fifth-grade students with prior programming experience and sufficient academic readiness may also be considered. Experience with Python, Java, or C++ is preferred but not required.

Instruction will cover both major components of the Junior Division competition:

- **Short Problems:** Core computer science topics such as number systems, Boolean algebra, computer number systems, recursive functions, data structures, graph theory, digital electronics, and algorithmic reasoning.

- **Programming Problems:** Translating problem statements into algorithms, implementing solutions, testing and debugging programs, and improving correctness and efficiency.

Classes will combine concept instruction, worked examples, guided practice, programming exercises, timed drills, and contest strategies. Programming support will be adjusted according to the experience of the enrolled students.

By the end of the course, students should have a stronger foundation in computer science, improved logical and algorithmic problem-solving skills, increased programming proficiency, and practical experience solving ACSL-style contest problems.

In addition to Ray Chinese School's standard tuition, families may choose to purchase recommended textbooks and collections of past ACSL contest problems from online vendors. Participation in official ACSL contests — including team roster submission, registration, and entry fees — will be handled separately from the course curriculum and tuition. These materials and contest-related expenses are not included in or charged by Ray Chinese School.