Jieruei Chang

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Education

Princeton High School, *Princeton, NJ*
Current GPA: 4.0/4.0 (unweighted)
Relevant coursework: Java, Object-Oriented Programming, Precalculus, Geometry, Biology I, Chemistry I

Awards

USA Computing Olympiad: Gold
AMC 10: 96.0 | **PSAT**: 1490
Violin: Winner of Scholarship and Concerto Awards at Westminster Conservatory
Princeton University Mathematics Competition: 1st (Team), 4th (Number Theory)
HackPHS 2021: Math solver with OCR and handwriting capabilities (1st overall, best hardware hack)

Experience

Princeton Soccer Robotics *(2021-)*
Lead Programmer
- ➔ Integrate complex hardware and software, design intelligent robot sensor and movement algorithms
- ➔ Reached out to companies for sponsorships, competed in national RoboCup Junior competition

PHS Algorithms Club *(2020-)*
Captain
- ➔ Teach algorithms and data structures to 15 members weekly
- ➔ Participate in national competitive programming competitions such as USACO and Philadelphia Classic

PHS Game Development Club *(2021-)*
Founder
- ➔ Teach concepts of game design and game development to 10 members weekly

Program in Algorithmic and Combinatorial Thinking *(2020-2021)*
Student, Mentor
- ➔ Selected to participate in five-week summer programs and year-long advanced program in theoretical computer science funded by National Science Foundation
- ➔ Mentored beginners on problem sets and homework assignments

PHS Math Team *(2020-)*
- ➔ Meet weekly to solve challenging problems in individual and team settings, participate in national competitions including MMATHS, AMC, PUMaC and CMIMC

Kickside Martial Arts *(2012-)*
Student, Instructor
- ➔ Taught classes in martial arts while emphasizing the importance of discipline and self-control
- ➔ Achieved rank of 2nd Dan Black Belt; led warm-ups, exercises and sparring sessions

Projects

Set Game Solver: Created computer vision card recognition system to play pattern finding game
Tres: Cloud-based online multiplayer Uno clone with Flask
Robowordle: Combined fiducial detection, image manipulation, and color identification to build robotic wordle solver
cmdpxl: Cross-platform terminal-based image editor using Python and OpenCV

Skills

Languages: Fluent in Python and HTML/CSS/Javascript, Proficient in Java and C++
Technologies: Flask, OpenCV, Git, Linux, LaTeX