

Jerry Mao

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Education	Massachusetts Institute of Technology <i>Candidate for Bachelor of Science in Computer Science and Engineering</i> • Coursework includes: Design and Analysis of Algorithms, Real Analysis. • Expected Spring 2020 coursework includes: Probability and Random Variables, Machine Learning. <i>Machine Learning online course by Stanford University</i> • Perfect score in course covering supervised and unsupervised machine learning, including neural networks, support vector machines, k -means clustering and PCA. Implemented algorithms in MATLAB.	Cambridge, MA, USA Expected June 2023 March 2019
	Caulfield Grammar School <i>High school diploma, Victorian Certificate of Education</i> • Dux of the Class of 2018, with perfect scores in four subjects and nationally highest ATAR score of 99.95. • Dux of class in college first-year Extension Math program run by the University of Melbourne.	Melbourne, VIC, Australia November 2018
Technical Experience	MIT Battlecode AI Programming Competition <i>Organizing committee member and developer</i> • Deployed critical infrastructure for distributed backend processing in Google Cloud, using Docker and Pub/Sub to create scalable software that is expected to handle hundreds of thousands of requests in a month. <i>Competitor and three-time finalist worldwide</i> • Designed team strategy for a bot to play a complex strategy game in a limited one-month development cycle, achieving 2 nd place worldwide in a college and professional level event with over 1000 registered participants.	Cambridge, MA, USA September 2019 – present December 2015 – February 2019
	Informatics Olympiad medalist <i>International medalist in advanced algorithms and programming</i> • Gold medalist at International Olympiad in Informatics (IOI) and four-time medalist from 2015 to 2018. • Competed in Google Codejam, placing 46 th and 47 th (Distributed) out of 24000 competitors globally (2018). • Led school team to 1 st place at the University of New South Wales High School Programming Competition.	International June 2010 – September 2018
	Freelance programmer <i>Project work in individual and team environments</i> • Developed and maintained an online math resources and competition website using PHP and MySQL, which was adopted as a teaching asset for math students at my high school. • Collaborated in developing a web-based card game interface, implementing integral functionality in Python.	Melbourne, VIC, Australia December 2015 – present
Leadership	MIT Battlecode AI Programming Competition <i>Organizing committee member</i> Coordinated event promotion to potential participants, including students at MIT and also worldwide. Liaised with institute administrative staff to secure lecture and tournament logistics.	Cambridge, MA, USA September 2019 – present
	National Informatics Olympiad program <i>Olympiad team coach and mentor</i> Mentored high school students in advanced university-level computer science, including one mentee who became a medalist at IOI 2019, and one who was selected as the national team reserve.	Canberra, ACT, Australia October 2018 – present
	Caulfield Grammar School <i>Founder and president of Mathematics Club</i> Inspired interest in math and computer science in nearly 30 regular weekly attendees, pioneering a teaching model based on games, competitions and fun mathematical activities. The club is continued by a current student, and has been endorsed by the school as an integral part of the community. <i>Student government and member of academics portfolio</i> Promoted competitions and Olympiads as a means of boosting interest and enthusiasm in STEM subjects, resulting in greatly improved engagement and an increase in competition participation of nearly 100 students.	Melbourne, VIC, Australia February 2016 – November 2018 February 2018 – November 2018
Awards and Achievements	• Guest speaker at multiple national math prize ceremonies and the Olympiad team announcement ceremony. • Full Chancellor's Scholarship recipient from the University of Melbourne for undergraduate study. • Premier's Top All-Round VCE High Achiever Award, presented annually to the top 30 students in the state.	
Skills	• C++, Python, Java, MATLAB, MySQL, Docker • Algorithm design and distributed algorithms, collaborative project work, learning new tools and technologies	