**Ruiyan Huang (Maggie)**

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**EDUCATION**

**Pearson College UWC** 08/2019 - Present

* 1st Semester of DP 1 Grade: Economics (7/7), English A Language & Literature (6/7), Further Mathematics HL (7/7), Physics HL (7/7), Marine Science SL (7/7), Spanish Ab Initio SL (7/7), Theory of Knowledge (A)
* SAT Reasoning Test: 1530; SAT Mathematics Level II: 800; AP Psychology: 5; TOEFL-iBT: 112

**United World College Changshu China** 08/2018 - 05/2019

* FP Final Grade: English 6 (7/7), Chinese 7 (7/7), Spanish 2 SL (7/7), Economics 3 (7/7), Chemistry 1 (7/7), Physics 3 (7/7), Math L 10-2 (7/7)

**Suzhou Foreign Language School** 09/2017 - 05/2018

* Average Score: 94.5/100

**EXTRA-CURRICULUM ACTIVITIES**

**SCUBA Diving**, *To-be Professional Diver*  09/2019 - Present

* Carry out daily pool training and ocean diving to prepare for the certificate evaluation as an open water diver by Professional Association of Diving Instructors (PADI);
* Devote time and energy to the maintenance of gears and refilling of tanks, raise funds to purchase new gears to run the outdoor program;
* Dive into the coastal ocean to help the school seawater table collect marine biological samples and control the sea animal population.

**Coastal Biodiversity**, *Member* 09/2019 - Present

* Responsible for recording the number and distribution of sea lions on Race Rocks Islands before logging the abiotic factors with respect to the wind speed, direction, and time of the day;
* Made a topographic map of the island on a lighthouse to effectively describe biological distributions via data analysis;
* Collected plankton samples along the coast and conducted research about plankton bloom by observation under the microscope; analyzed the food chain of marine organisms represented by salmon through field study.

**Astronomy**, *Member* 09/2019 - Present

* Learn the usage of the telescope, observe stars, take astrophotography, upgrade our equipment, watch documentaries, and do researches;
* Plan to retrofit the telescope so that we can control it remotely and automatically under various climatic conditions.

**U-CODE Movement**, *Co-founder*  08/2018 - 05/2019

* Self-studied Python and peer-tutored the programming language; developed mini projects with basic coding methods;
* Popularized the education of girls’ coding through bilingual teaching; empowered girls from local secondary schools with coding skills to explore their boundless potentials in science;
* Cultivated women’s self-confidence and promote beyond the local community to broke the stereotype of gender in STEM.

**China Thinks Big (National Final)**, *Captain* 11/2018 – 04/2019

* Assembled a team of members from different cities across China and coordinated on-and-offline meetings to prepare for a research project;
* Studied the development of juvenile psychology in their growth, proposed solutions to improve the introverted mentality by applying Morita therapy.

**Kayaking (UWC-CSC)**, *Member* 01/2019 - 05/2019

* Built-up physical fitness and trained on rowing machines in the school gym;
* Practiced my speed and balance on the lake; learned how to balance myself standing on the boats and rest on the water.

**VOLUNTEER & COMMUNITY SERVICE**

**Metchosin Community House**, *To-be Leader* 09/2019 - Present

* Help the local elderly solve their daily difficulties in life and technology, but often spend more time chatting with them and learn from their rich life experiences and optimistic attitudes towards life;
* Assist the elderly in turning their life stories and experiences into picture books, accompanied by memoirs and poems.

**Zhi Xing (Project Week): Voluntary Tutoring in Henan**, *Team Leader* 10/2019 – 11/2019

* Instructed a group of left-behind children (6-to-8 graders) in Ruyan Hope School the subject of geography by inspiring them to map the outside world with imagination;
* Observed and logged the psychological development of pupils whose growth lacks parental companionship due to their laboring in cities all the year around.

**ACADEMICS**

**Canada/USA Mathcamp**, *Scholar* 06/2019 - 07/2019

* Studied college-level and unusual math topics, for instance, Knot theory, Non-Euclidean Geometry, Morse Theory, Root system, Cryptography;
* Attended daily colloquia led by young Ph.D. instructors to discover new branches of math and the magic of mathematical knowledge, such as Hodge conjecture, the mathematics of origami, and even “Why 37 is Evil”;
* Conducted collaborative project on point-set topology and graph theory with peers under the close guidance of Mathcamp faculty.

**Columbia University Social Science Research Training Workshop**, *Researcher* 11/2018 – 02/2019

* Interviewed 50 groups of students, conducted a literature review of behavioral psychology, analyzed data for social media and advertising, produced an English paper: How does targeted advertising on social media impact the behaviors of adolescents?
* Honed research skills by attending intensive-reading lectures; studied topics of social justice, gender equality, and juvenile development; mastered new tools to analyze our contemporary social problems.

**Independent Research on Cluster Algebra**, *Researcher* 08/2019 - Present

* Work with Veronique Bazier-Matte, Ph.D at Université de Sherbrook, and conduct the research on Quasi-cluster Algebra of non-orientable surfaces;
* Have finished the proof on unistructurality of cluster algebras from Mobius stripe without punctures; proved the number of triangulations on a Mobius stripe without punctures.

**HONORS & AWARDS**

* Honor Roll in BC, Canadian Open Mathematics Challenge, qualified to participate in CMO (Canadian Mathematical Olympiad), 11/2019
* Top 5%, Euclid Contest, The CENTER for EDUCATION in MATHEMATICS and COMPUTING, University of Waterloo, 05/2019
* Second Prize, CHINA THINKS BIG National Final, 03/2019
* Third Prize, Columbia University Social Science Research Workshop, Columbia INCITE, 2019
* First Prize (China), Math League, qualified for US Final (at Stanford) and its Math Camp (co-held by the Departments of Mathematics of Princeton University, Columbia University, and Williams College), 2018
* Second Prize, Jiangsu Junior High School Mathematics Competition, 2017
* Second Place (Global Final), The Berkeley Mini Math Tournament (BmMT), 2017