

Miss Ruiyan Huang (Maggie)

phone | email

address

EDUCATION

Pearson College UWC, 08/2019 - Present

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

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

Academics

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

1. studied college-level and unusual math topics, for instance, Discrete Mathematics, Number Theory, Topology, Gödel's Incompleteness Theorem, Cryptography
2. attended the 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"
3. conducted collaborative project on point-set topology and graph theory with peers under the close guidance of Mathcamp faculty

Individual Investigation on Cluster Algebra, Jun2019–present

- Individual investigation on Quasi-cluster Algebra of non-orientable surfaces.
- Finished proof on unistructurality of cluster algebras from Mobius stripe without punctures.
- Now investigating the number of triangulation on a Mobius stripe without punctures.

Algebraic Geometry Online Program, Sep2019–present,

18 hours per week online lectures and workshop, 6 weeks

Lecture contents include: Algebraic Varieties, Ringed Spaces, Projective Varieties, Grothendieck's Schemes, and the Applications of Scheme Theory

Extra-curriculum Activities**SCUBA Diving**

Have gone through training and get certified by PADI as an open water diver.

Go diving in sites near campus to enhance understanding of our environment.

Help organize the school diving room help with marine science investigations.

Raise funds by ourselves to keep the program running and add new gears.

It is a hard commitment not only because of the extreme temperature we have to endure in winter dives, but also for our responsibility to do something for the damaged ocean.

Coastal Biodiversity

conducted field research about the plankton bloom, collected plankton samples along the coast and observed them under microscope; field study and analysis of the food chain of marine organisms represented by salmon. During the CAS week of biodiversity, I was responsible for recording the number and distribution of sea lions on Race Rocks before logging the abiotic factors with respect to the wind speed, direction, and time of the day. Beside this data analysis, I made a topographic map of the island on a lighthouse, effectively describing biological distributions.

Astronomy

Metchosin Community House

U-CODE Movement (girls' coding), Co-founder

1. Self-studied Python and peer-tutored the programming language; developed mini projects with basic coding methods;
2. 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;
3. Cultivated women's self-confidence and promote beyond the local community to broke the stereotype of gender in STEM.

Zhi Xing (UWC-CSC Signature Project Week): Volunteer Teaching in Henan (China), 2018; Team Leader

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

Death Cafe, founder at Pearson College & leader

1. Hold death cafe sessions weekly in school; discuss about death within diverse cultures and attitudes.
2. Increase global awareness of death to help people make the most of their lives; compare the diverse cultures.

Kayaking, UWC-CSC

Color Run Fund Raising

Honours & Awards

1. Honour Roll in BC, Canadian Open Mathematics Challenge, qualified to participate in CMO (Canadian Mathematical Olympiad), 11/2019.
2. Top 5%, Euclid Contest, The CENTRE for EDUCATION in MATHEMATICS and COMPUTING, University of Waterloo, 05/2019
3. Second Prize, CHINA THINKS BIG National Final, 03/2019

- 4.Third Prize, Columbia University Social Science Research Workshop, Columbia INCITE, 2019
- 5.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
- 6.Second Price, Jiangsu Junior High School Mathematics Competition, 2017
- 7.Second Place (Global Final), The Berkeley Mini Math Tournament (BmMT), 2017