# Yuting Huang

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## EDUCATION

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|---|---|
| 08/2025 - Present | **Ph.D. in Education (**Mathematics Education Specialization**)** <br> School of Education, University of Delaware, Newark, DE |
| 09/2023 - 09/2024 | **M.Ed. in Mathematics Education (Distinction)** <br> Faculty of Education, University of Hong Kong, Hong Kong SAR, China <br> Supervisor: Dr. Biyao Liang |
| 08/2015 - 06/2019 | **B.Sc. in Applied Statistics** <br> School of Mathematics, Sun Yat-sen University, Guangzhou, China <br> *Minor* in Finance <br> Lingnan College, Sun Yat-sen University, Guangzhou, China |

## PUBLICATIONS (* indicates corresponding author)

In-Progress Work

- **Huang, Y.** & Liang, B.* (2025). Developing Mathematical Thinking in a Programming-based Environment: A Case Study of Secondary Students' Learning of Linear Functions. [Manuscript in preparation].
- **Huang, Y.,** Ye, H., & Ng, O.* (2025). Exploring Teacher's Decision-Making When Integrating Computational Thinking in Mathematics Classroom from the Perspective of Practical Rationality. [Manuscript in preparation].
- Liang, B.*, Liu, R., Wu, Y., & **Huang, Y.** (2025). Learning to Decenter and Decentering to Learn: A Mathematics Teacher's Journey to Explore Student Meanings for Geometric Dilation. [Manuscript in preparation].

Conference Proceedings

- **Huang, Y.** & Liang, B. (2024). Students' Representational Activities in a Block-based Programming Environment: The Case of Linear Function. *Conference Proceedings of the International Conference on Computational Thinking and STEM Education 2024 (CTE-STEM 2024)* (pp. 147-150). Beijing, China.
- **Huang, Y.,** Shen Y., & Huang, Z. (2024). Assess Computational Thinking in K-12 Students' Mathematics Education: A Scoping Review with Cultural Sensitivity Focus. *Conference Proceedings of the International Conference on Computational Thinking and STEM Education 2024 (CTE-STEM 2024)* (pp. 72-77). Beijing, China.

## PRESENTATIONS

- **Huang, Y.** (2024, Nov. 10). *Exploring Students' Representational Activities in Programming-based Mathematics Environment: A Case Study of Teaching Linear Functions* [Oral Presentation in Chinese]. 2024 Academic Annual Meeting of Chinese Society of Mathematics Education. Haikou, China.
- **Huang, Y.** & Liang, B. (2024, May 28). *Students' Representational Activities in a Block-based Programming Environment: The Case of Linear Function* [Paper Presentation]. The 8th International Conference on Computational Thinking and STEM Education (CTE-STEM 2024). Beijing, China.
- **Huang, Y.** & Liang, B. (2024, May 4). *Supporting Multiple Representations for Linear Relationships Through Block-based Programming* [Paper Presentation]. 2024 Centre for Information Technology in Education Research Symposium (CITERS 2024). Hong Kong SAR, China.

## WORKING EXPERIENCE

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| **Graduate Research Assistant** | 09/2025 – Present |

Supervisor: Dr. Teo Paoletti
School of Education, University of Delaware, Newark, DE

**Research Assistant**                                    01/2025 – 06/2025
Supervisor: Dr. Biyao Liang
Faculty of Education, University of Hong Kong, Hong Kong SAR, China
  ➢  Lead a project exploring how in-service teachers construct and leverage students' mathematical thinking in designing and implementing a mathematics lesson


**Research Assistant**                                    07/2024 – 12/2024
Supervisor: Dr. Oi-lam Ng
Department of Curriculum and Instruction, Chinese University of Hong Kong, Hong Kong SAR, China
- *Mathematical Problem Solving through Digital Making: Envisioning a Computationally Enhanced Mathematics Curriculum in Hong Kong's Primary and Secondary Schools (2021-present).*
  ➢  Conduct a literature review about teacher professional development centered on computational thinking, assist in data collection (classroom observation, grounded notes, and interview), conduct data analysis and paper writing (first author)
  ➢  Conduct a literature review about learning geometry through technologies
  ➢  Assist in data collection (focus group observation and grounded notes)
  ➢  Design survey items about mathematics teachers' conception of technology-enhanced instruction
- Assist in teaching: design instructional materials, give comments on students' assignments, and grade students' calculus examinations


**Student Research Assistant**                            11/2023 - 06/2024
Supervisor: Dr. Biyao Liang
Faculty of Education, University of Hong Kong, Hong Kong SAR, China
- *Innovating Programming-enhanced Mathematics Curriculum Through Teacher-researcher Partnership: Design-based Research as a Pathway to Teachers' Professional Learning (Jun 2024-Jun 2026).*
  ➢  Assist in collecting programming-based mathematical task banks and recruiting participants
  ➢  Prepare programming-based mathematics instruction training workshops
- *Investigating Interplays Between Computational Thinking and Mathematical Thinking (Jun 2023-Jun 2025).*
  ➢  Conduct a literature review about the integration of computational thinking and mathematics education, design programming-based mathematics tasks, recruit participants, collect data (task-based interviews), analyze data, and write paper (first author)
- *Learning to Conduct Constructivist Teaching Experiment: A Collaboration with Graduate Students, Pre-service Teachers, and In-service Teachers (Jan 2023-July 2024)*
  ➢  Assist in analyzing data and writing paper (fourth author)


**Teaching Assistant**                                    11/2023 - 03/2024
Course code: EDUC6718 Methods course-Mathematics          Course Lecturer: Dr. Biyao Liang
Postgraduate Diploma in Education (PGDE), Faculty of Education, The University of Hong Kong, HK SAR
- Assist in daily teaching and instructional materials (AI-related and programming-based materials)
- Assist in giving feedback and comments on students' assignments

**Mathematics Teacher** 06/2022 - 07/2023
Lianzheng School (Junior Secondary), Chaozhou, Guangdong, China
- Headteacher and mathematics teacher for one class with 30 students in Grade 8
- Organized project-based learning for Grade 8 students: *Draw a school floor plan*
- Math club instructor: foster students' interest in mathematics, expand their mathematical knowledge, and enhance their problem-solving skills through engaging and challenging activities

**Marketing Analyst** 06/2019 - 06/2020
37 Interactive Entertainment, Guangzhou, Guangdong, China
- Data analysis and advertising optimization

## LEADERSHIP EXPERIENCE & VOLUNTEERING

**Secretary of the Student Union** 05/2016 - 05/2017
School of Mathematics, Sun Yat-sen University, Guangzhou, China

- Responsible for communicating the progress of various departments in the Student Union, financial management, and social media operation

- Organized four school-level activities and four department-level activities, with a total of 4,000+ participants

**President of an NGO** 05/2016 - 05/2017
Sun Yat-sen University, Guangzhou, China

- Planned, organized, and participated in a volunteering activity, providing one month of summer teaching support at a rural primary school in a poor county in Guangdong Province, China.

- Charity activities caring for disabled children

## HONORS, AWARDS

**University of Hong Kong** Hong Kong SAR, China
- Pass with Distinction, Dean's List, First-Class Honors (2024)

**37 Interactive Entertainment (Shanghai) Technology Co., Ltd** Guangzhou, China
- Member of the Annual Best Promotion Team (2020)

**Sun Yat-sen University** Guangzhou, China
- Third Academic Scholarship (2017)
- Outstanding Student Leaders (2017)
- Excellent Student Union Member (2016)

## ADDITIONAL
- Teaching Certificate: Chinese Secondary Mathematics Teacher License, China
- Language Proficiency: Chinese [Mandarin (native), Hokkien (native), Cantonese], English