

# Stephen Shang Yi Liu

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Hong Kong S.A.R.

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## Education

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**Case Western Reserve University** **Cleveland, Ohio**  
*M.Sc. Mathematics, Cumulative GPA: 4.00* *2018–2020*  
Master's Thesis: "On the asymptotic behavior of the magnitude function for odd-dimensional Euclidean balls"  
advised by Professor Mark Meckes

**Case Western Reserve University** **Cleveland, Ohio**  
*B.Sc. Applied Mathematics, Cumulative GPA: 3.975* *2016–2020*  
Senior Thesis: "The Magnitude of a Finite Metric Space" advised by Professor Mark Meckes

**Chinese International School** **Hong Kong, Hong Kong S.A.R.**  
*Bilingual I.B. Diploma, Final Score: 41/45* *2009–2016*  
Mathematics HL, English A Literature HL, Computer Science HL, Chinese A Language and Literature SL,  
History SL, Physics SL

## Employment

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**EMALI.IO** **Hong Kong**  
*Blockchain Engineer* *June 2020 – Present*  
Prototyped and developed blockchain applications using Hyperledger Fabric. Administered training for other engineers on blockchain technology.

**EMALI.IO** **Hong Kong**  
*Software Development Intern* *Summer 2019*  
Prototyped front-end and back-end web services utilizing blockchain technology (Hyperledger Fabric and Hyperledger Composer). Produced and presented training materials for learning blockchain technology for an audience of 10 engineers at a large logistics company.

**Case Western Reserve University**  
*Supplemental Instruction Leader* *Spring 2017–Spring 2018; Fall 2019 – Spring 2020*  
Taught optional group tutoring sessions for students in 1st and 2nd year engineering and computer science courses (introduction to materials science and data structures and algorithms course). Sessions were twice a week for a duration of 1.5 hours each routinely with an attendance of 20 - 40 students. Designed and lead group activities for students to review material covered in lecture and practice problem solving techniques required for homework and exams.

**The Momentum Group (now Chatly.com)** **Guangzhou, China**  
*Software Development Intern* *Summer 2017*  
Developed chatbots using Node.js and Microsoft Botbuilder Framework for integration into WeChat Messenger. Built in-house chatbot administration system for on-demand creation of new chatbots with custom conversation trees.

## Projects and Research

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**Case Western Reserve University**  
*Master's Thesis* *Fall 2019 - Spring 2020*  
Title: On the asymptotic behavior of the magnitude function for odd-dimensional Euclidean balls

**Case Western Reserve University**  
*Senior Thesis* *Spring 2019*  
The Magnitude of a Finite Metric Space

**Case Western Reserve University***Undergraduate Reading Course**Summer 2018*

Reading course in category theory, following “Basic Category Theory” by Tom Leinster (University of Edinburgh)

**Honors, Awards and Scholarships**

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**Case Western Reserve University***The Max Morris Prize**Spring 2020*

For excellence in mathematics to a student pursuing the Bachelor of Science degree.

**Case Western Reserve University***Phi Beta Kappa Award**Spring 2018*

Awarded to sophomores with highest grade point average.

**Case Western Reserve University***Dean's High Honors**2016–2020***Chinese International School***Konberg Ngai Award for Bilingual Excellence**Spring 2016***Skills**

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**Languages:** Fluent in English, Putonghua and Cantonese

**Technology:** Proficient in Java, Python, Arduino, Javascript (including Node.js), MATLAB and LaTeX