

**SHANG (IRENE) LI**  
Hobbs 203, 230 Appleton Place  
Nashville, Tennessee 37203  
(310)696-6880 | e: shang.li@vanderbilt.edu

## EDUCATION

---

- Vanderbilt University, Peabody College** Nashville, TN  
Ph.D. in Psychological Sciences, Cognition in Context Aug 2024 – present
- Leading Project: Leveraging Numerical Patterns in a Modified Board Game to Improve Numeracy Knowledge in Primary School Students
- University of California, Los Angeles, School of Education and Information Studies** Los Angeles, CA  
Master of Arts in Education, Social Research Methodologies Sep 2022 – June 2023
- Selected Courses: Multiple Regression Analysis, Linear Statistical Models in Social Science Research: Analysis of Designed Experiments, Advanced Multilevel Modeling
  - Capstone Project: Measures of Math Anxiety among School-Aged Students
- Duke University** Durham, NC  
Bachelor of Science in Applied Mathematics and Computational Science Aug 2018 – May 2022
- Selected Courses: Math of Data Analysis & Machine Learning, Mathematical Modeling, Behavioral Sciences, Cognitive Psychology, Educational Psychology, Probability and Statistics
  - Selected Awards: Four-Year Full-Tuition Scholarship
- Duke Kunshan University (dual degree)** Suzhou, China  
Bachelor of Science in Applied Mathematics and Computational Sciences Aug 2018 – May 2022
- Inaugural Class of Undergraduate Program
  - Selected Awards: Dean's List, Undergraduate Summer Research Grant (\$ ~2k), China's National Innovation and Entrepreneurship Grant (\$ ~15k)

## PEER-REVIEWED PUBLICATIONS

---

### Journal Articles

- Li, S.; Li, S.; Fan, L. (March 2023). Can We Introduce Calculators to College Entrance Examinations for Mathematics? An International Comparison of 30 Countries and Regions' Calculator Policy. *Journal of East China Normal University (CSSCI, IF=4.76)*.
- Harper, J.; Li, S. (August 2021). Criteria for Selecting Instructors of English for Academic Purposes Courses: What Do Students Look for? *Journal of English Language Teaching and Linguistics*, 6(2).

### Conference Papers and Posters

- Li, S. (July 2024). Measures of Math Anxiety among School-Aged Students. Paper in proceedings of the 15th International Congress on Mathematics Education (ICME-15), Sydney, Australia.

## RESEARCH EXPERIENCE

---

- Vanderbilt University, Children's Learning Lab** Nashville, TN  
Graduate Research Assistant to Bethany Rittle-Johnson, Ph.D. Aug 2024 – present
- Research Topic: "Leveraging Numerical Patterns in a Modified Board Game to Improve Numeracy Knowledge in Primary School Students"
- UCLA, Department of Psychology** Los Angeles, CA  
Research Assistant (full-time) to James Stigler, Ph.D. June 2023 – June 2024
- Research Topic [1]: Understanding College Students' Procrastination in Introductory Statistics
  - Initiate research questions, compose proposals, perform data coding and analysis on CourseKata data, and delegate tasks to team members as the leader of a diverse research team, which includes a postdoc, a graduate student, and an undergraduate student
  - Research Topic [2]: Understanding Students' Motivation in College Introductory Statistics
  - Conduct a literature review, lead statistical analysis to identify individual differences and between-group disparities in motivation factors (e.g., mindset beliefs, utility values, abilities, self-efficacy), particularly at the intersection of race and gender

**Tsinghua University, Child Cognition Center** Beijing, China  
 Research Assistant to Stella Christie, Ph.D. and Honghong Bai, Ph.D. May 2022 – Oct 2022

- Research Topic [1]: “The Emergence of Creativity within and between Kids and its Educational Implications”
- Research Topic [2]: Cross-Ethnic Study on Language’s Effect on Children’s Numerical Cognition (in collaboration with Harvard Laboratory for Developmental Studies)
- Recruited 15 volunteer families through online and in-person advertising workshop, negotiated with kids and parents, conducted 10+ hours research, participated in 50+ hours transcripts coding, drafted public reports

**Duke University, Education Department** Durham, NC  
 Independent study under Kisha N. Daniels, Ed.D. Aug 2021 – Mar 2022

- Title: Raise Awareness about Eliminating Asian Stereotypes and Microaggressions in a Video Series
- Conducted research and interviews, filmed content, edited video clips with Final Cut Pro X

**East China Normal University, Asian Centre for Mathematics Education** Shanghai, China  
 Research Assistant to Lianghuo Fan, Ph.D. and Shuhui Li, Ph.D. May 2021 – Dec 2021

- Research Topic: “Can We Introduce Calculators to College Entrance Examinations for Mathematics? —An International Comparison of 30 Countries and Regions’ Calculator Policy” (published)
- Contacted scholars and students from 10+ countries to collect information about math college entrance exams, analyzed math curriculum and math problems, drafted the paper, involved in paper revision.

**Duke Kunshan University** Suzhou, China  
 Signature Work Mentee under Konstantinos Efstathiou, Ph.D. Dec 2020 – May 2022

- Research Topic: “Challenges and Opportunities in Technology Usage in Chinese K-12 Mathematics Education” (Submitted for Review (The 15th International Congress on Mathematics Education (ICME-15), 2024))
- Carried out observations in Chinese public and international schools, and an American public school; conducted interviews with teachers and mathematics education researchers, performed a field study to investigate the efficiency of utilizing a self-designed teaching platform in math classes

**Duke Kunshan University, Language and Culture Center** Suzhou, China  
 Independent Researcher Sep 2020 – Aug 2021

- Research Topic: “Criteria for Selecting Instructors of English for Academic Purposes Courses: What Do Students Look for?” (published)
- Conducted a literature review, designed two cycles of questionnaires, carried out focus group interviews, drafted the paper

**Duke Kunshan University, Environmental Research Center** Suzhou, China  
 Student Worker to John S. Ji, Ph.D. Aug 2018 – Oct 2019

- Title: Digital Biomarker Study: Environmental Pollution Exposure and Gene-Environment Interaction
- Coordinated lab activities, collected data from 8 air quality sensors every week, used R and Excel to detect changes in different air quality indexes, conducted weekly air-quality reports, designed promotional materials (including logo, posters, official website and souvenirs), recruited 50+ participants, facilitated research using EEG and eye tracker

## TEACHING AND MENTORING EXPERIENCES

**Duke University, EDUC 240 Educational Psychology** Durham, NC  
 Teaching Assistant Aug 2021 – Dec 2021

- Offered detailed instructions (video recordings) for students on how to effectively complete assignments
- Facilitated in-class discussion and group collaboration to ensure maximum engagement with coursework
- Held office hours for 30 students to advise on assignments and academic development

**Canadian International School of Kunshan, 4th Grade Maths** Suzhou, China  
 Teaching Assistant Feb 2021 – May 2021

- Co-taught 4th-grade Mathematics with a senior teacher, provided after-class math tutoring for 60+ students
- Created additional tutoring opportunities and resources for students whose first language was not English

**Duke Kunshan University, Center for Teaching and Learning** Suzhou, China  
 Undergraduate Research Fellow (STEM Student Representative) Jan 2021 – Oct 2021

- Communicated with students and faculty frequently to foster the teaching and learning community, participated in some of the faculty orientation, teaching and learning series
- Contributed to writing teaching and learning stories from my perspective as a student: *Flipped Classroom: Leaving Flexibility for Adult Learners* (published on *Duke Learning Innovation*)

## ENTREPRENEURSHIP

---

### **Educational Channel on bilibili** (largest video streaming platform in China)

Dec 2019 – Present

Content Creator and Producer

- Received around \$15k from China's National Innovation and Entrepreneurship Funding
- Independently produced videos showcasing the experiences of the first class of DKU undergraduate program, significantly boosting its visibility: 60% of admitted students report having viewed this channel prior to applying or committing
- Created videos covering study strategies, interview tips, research, internship experiences for students, and enhanced the accessibility of educational theories to empower educators with up-to-date knowledge
- Launched 70 videos, accumulating 155K Likes, 2.4M Views, and garnering 8.4K followers (as of May 2023)
- Produced commercial videos for various companies, utilized for product promotion on platforms such as Amazon and YouTube, generating an annual income of over \$10k

## SERVICE AND VOLUNTEER EXPERIENCE

---

### **South Lakes Elementary School**

Aug 2021 – Dec 2021

Teaching Assistant

Cary, USA

- Utilized the "5E model" to design math lessons using the interactive teaching platform
- Analyzed the teaching strategies of a 5th-grade mentor teacher and summarized them into weekly reports

### **The 14th International Congress for Mathematics Education (ICME-14)**

May 2021 – July 2021

Onsite Assistant

Shanghai, China

- (Acknowledged in conference brochure) Onsite assistant of Workshop-II in Early Career Research Day and facilitator of Topic Study Group 31: Contacted with the speakers post-conference, interpreted (English and Chinese), cooperated with online speakers to organize offline group discussions

### **DKU Home**

Dec 2018 – May 2022

Cofounder

Suzhou, China

- Co-led DKU Home, the biggest student-run service-learning organization in DKU
- Empowered 800+ kids from local low-income families to gain access to high-quality but free English tutoring
- MC of all large events
- Collaborated with 5 local districts and 100+ DKU students from various countries with diverse cultural backgrounds as volunteer teachers

## SKILLS

---

- Languages: fluent English, native Chinese, and basic Korean
- Advanced math skills, experienced in Excel, MATLAB, R, and Python
- Professional video editing skills (Final Cut Pro X)