Shiyue Li

Curriculum Vitae

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�Education

2019-	**PhD in progress**, *Brown University*.
2017-2019	**Master of Science in Mathematics**, *Yale University*.
2013–2017	**Bachelor of Science**, *Harvey Mudd College*.
	Graduated with Distinction and Honors in Mathematics
2010–2013	**High School**, *High School Affiliated to Nanjing Normal Univeristy*.

▬ Experience

Summer 2018 Summer 2019	**Mentor**, Canada/USA Mathcamp.
	○ Taught eight week-long classes on algebraic number theory, modular forms, group actions on trees and rational points on elliptic curves, a series of Young tableaux classes for talented high school students
	○ Engaged in various activity planning.
2016–2017	**Senior Thesis**, Harvey Mudd College.
	Tropical Derivation of Cohomology Ring for Heavey/light Hassett Spaces
	Advisor: Dagan Karp (Harvey Mudd College), Dhruv Ranganathan (MIT)
2016	**Google Research and Machine Intelligence**.
	Advisor: Caroline Pantofaru, Malcolm Slaney
	○ Research on Machine Learning algorithms with TensorFlow to solve an audio/video syncing problem involving computer vision and human saliency event detection.
	○ Implemented data processing pipelines in C++, Python and TensorFlow models that run on large-scale audio/video data.
2014	**HHMI Summer Research**, Pomona College.
	Advisor: Blerta Shtylla (Pomona College)
	Mathematical Modeling on DNA Segregation. Implemented Gillespie algorithms and Next Sub-volume Method to simulate diffusion and reactions of ParA and ParB proteins.

2012	**Summer Science Program**, Soccoro, NM.
	Research on orbit determination of solar-system body. Implemented programs in Python using iterative Gaussian method to determine the orbit elements based on the observation data of Asteroid 1998QS52 in Etscorn Observatory over six weeks. Paper archived in Harvard-Smithsonian Center for Astrophysics.

Talks

Spring 2019	**Moduli Space of Linear Series with Imposed Ramifications**, *Brown*.
Spring 2019	**Moduli Space of Linear Series with Imposed Ramifications**, *Yale*.
Fall 2018	**Schubert Calculus and Young Tableaux**, *Yale Graduate Student Seminar*.
Fall 2017	**Meet the Matroids**, *Yale Graduate Student Seminar*.

Teaching

Yale University

Fall 2018	Math 225 Linear Algebra and Matrix Theory TA
Spring 2018	Math 112 Calculus TA

Canada/USA Mathcamp

Summer 2018	Taught five week-long classes on algebraic number theory, modular forms, rational points on elliptic curves, geometric group theory and tropical plane curves.

Harvey Mudd College

2017	Math 147 Topology TA
2016	Math 132 Anaysis II TA
2015	Math 171 Abstract Algebra TA
2015	Physics 51 Electricity Theory and Optics TA
2014	Physics 23 Special Relativity, Physics 24 Mechanics Grader
2014	Math 30 Calculus, Math 35 Statistics and Probability Grader

Awards and Honors

2018-2019	Robert Willets Carle Scholarship for PhD study at Yale
2017-2018	Kenneth and Mary Wang Graduate Fellowship for PhD study at Yale
2017	Lang Fellowship for PhD study at Yale
2016	SIAM Outstanding Student Chapter Leadership – for serving the Harvey Mudd Math Club as a student chapter of Society for Industrial and Applied Mathematics
2013-2017	Harvey Mudd Merit Student Scholarship

2013-2017	Harvey Mudd International Student Scholarship – given to one international student per class for academic excellence
2013-2017	Dean's List (all semesters)
2013	Chinese National Linguistics Olympiad, Personal 3rd Place
2013	Chinese National Linguistics Olympiad, Team 2nd Place

Service

2018 - 2019	**Co-organizer**, *Intersections Seminar Celebrating Women and Gender Minority Groups in Mathematics at Yale*.
Spring 2019	**Co-organizer**, *Directed Reading Program at Brown*. Organized Directed Reading Program for Brown undergrads with math-related majors
2018 - 2019	**Senator**, *Yale Graduate and Professional Student Senate*. Department of Mathematics representative
Fall 2018	**Organizer**, *Directed Reading Program at Yale Math*. Organized Directed Reading Program for Yale College undergrads with math-related majors
2016 - 2017	**Event Planning Officer**, *Harvey Mudd College Math Club*. Assist the president in event planning for math community at Mudd.
2015 - 2016	**President**, *Harvey Mudd College Math Club*. Organize and assist talks, math teas, field trips to industry and events for math community at Mudd.
2015 - 2016	**Co-organizer**, *Caltech Harvey Mudd Math Competition*. Organize problem writing, grading together with the Caltech representitives.

Computer Skills

Proficient	**C++, Python, LaTeX, TensorFlow, XML**	*LoC:* 5000+
Intermediate	**Java, Mathematica, Matlab, HTML, Linux**	*LoC:*1000+

Study Abroad

2015	**Vienna**, *IES Vienna Music History and Performance Program*. Studies in piano, chamber music, music theory and history in early 20th century, and German.
2015	**Paris**, *CIEE French Language and Culture Program*. Studies in French language.

Languages

Chinese Mandarin	*Mother tongue*

English	*Proficient*
French	*Intermediate*

Hobbies

Piano	*Instructors: Gayle Blankenburg (LA), Carol Morgan (Vienna), Fantee Jones (Yale), Maxwell Foster (Yale)*
Classical Guitar	*Pomona College Guitar Quartet; Instructor: Lei Zhang (China), Jack Sanders (LA)*
Go	*Achieved 3 dan at age of 9*
Puzzles	*Google Games 2016 Los Angeles, 7th Place Facebook Puzzlehunt 2017 at Harvey Mudd, 3rd Place Microsoft, Puzzle Challenge 2017, Los Angeles 2nd Place, 25th country-wise*