

Linghai Liu

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Education

Brown University | *Sc.B. Applied Mathematics – Computer Science Candidate* | GPA: 4.0 Providence, RI | Expected graduation: May 2023

- Relevant coursework: Object-Oriented Programming, Data Structures & Algorithms, Honors Calculus, Linear Algebra, Ordinary Differential Equations, Partial Differential Equations, Intro to Computational Linear Algebra, Statistical Inference, Deep Learning, Intro to Corpus Linguistics, phonology.

Shanghai High School | High School Diploma | GPA: 94.23%

Shanghai, China | September 2016 – June 2019

- Additional coursework outside Chinese College Entrance Exam preparation: Boolean Algebra, HTML/CSS, Digital Circuits, French

Research Experience

Land Degradation Neutrality Project | Research Assistant

Providence, RI | Ongoing since October 2020

- Working at Population Studies and Training Center (PSTC) at Brown University, under the supervision of Prof. Kevin Mwenda.
- Collect and analyze DHS data, and propose ways in which DHS data can be used to realize the strategic objectives (SO-2) addressed in United Nations Convention to Combat Desertification.
- Co-authored Tools4LDN (Tools for Land Degradation Neutrality) Technical Report on Monitoring Progress Towards SO-2: *To Improve Living Conditions of Affected Populations*.

Rural Education Action Program (REAP), Stanford University | Research Assistant

Online | May 2020 – September 2020

- Participated in follow-up survey via telephone on the influence of learning with information technology. Cleaned and analyzed survey data using Stata.
- Member of the quality control & management team. Kept track of recordings for telephone surveys and daily completion records and compared them with the actual online survey forms received.
- Developed a front-end academic website, to assist a postdoctoral scholar.

Brown University Mathematics Projects, Brown University | Student Researcher

Providence, RI | July 2020 – August 2020

- Co-authored a 19-page final report paper with two other undergraduates advised by a Ph.D. student on the topic of randomizing speed using Markov Chain Monte Carlo method.
- Used MATLAB and Python packages *pandas*, *matplotlib*, *NumPy*, and *scipy* to simulate, collect, visualize, and analyze data.

Leadership and Mentorship Experience

Meiklejohn Peer Advising Program, Brown University | Peer Advisor

Providence, RI | Ongoing since August 2020

- Cooperate with a member of the faculty at Brown University to advise a group of 5 Freshmen students on course selection, learning habits, housing, summer internships and research opportunities, navigating the Brown campus and Providence, and social issues.

Harvard College AUSCR Summit for Young Leaders in China

Teaching Fellow

ONLINE | August 2020

- Assisted a seminar leader from Harvard College with the teaching of *Introduction to Computer Science in Python*.
- Organized, coordinated, and co-taught a capstone course to develop the students' design and analysis of their transformation proposals for designing nodes in urban areas.
- Bonding and planning activities for a 'house' of over 100 students with other teaching fellows and a 'block' of 10 students on my own. Negotiated with teaching fellow managers and house leaders on student issues.

Senior Student Intern

Hangzhou, China | August 2019

- Assisted with the work of teaching fellows and seminar leaders to build closer bonds with students.
- Held meetings and wrote summaries to conclude the daily work and life for students in the same 'house'.

Brown Chinese Students and Scholars Association | Chair & Member of Liaison

Providence, RI | Ongoing since September 2019

- Connect and cooperate with companies, institutions, and organizations to provide Chinese students and scholars at Brown with various opportunities for career and academic experiences.
- Organize joint events (galas, career fairs, etc.) with other Ivy League universities and other US institutions.

Skills and Interests

Languages: Mandarin (native); fluent in English; conversational French; and some Japanese

Technical: Python, Java, MATLAB, HTML/CSS, LaTeX, STATA, R.

Interests: Languages, violin, basketball, and English and French novels

Other Activities: Panel Member of Brown China Summit, since September 2019; Data Assistant at Business Big Data Co., Summer 2018

Awards

Hartshorn-Hypatia Freshman Math Contest: 2nd place (tied), Brown University, 2019

Graduated with the Highest Honor and Distinction, Shanghai High School, 2019

Excellence Editor, Shanghai High School Radio Station, 2018

Teaching Fellow, Harvard College AUSCR Summit for Young Leaders in China (HSYLC), 2020

Honors Student & Exceptional Senior Student Intern, Harvard College AUSCR Summit for Young Leaders in China (HSYLC), 2019