

Lily Xu

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lily-x.github.io

EDUCATION	Harvard University , Cambridge, MA PhD Student in Computer Science Advised by Prof. Milind Tambe GPA: 4.0	2018 – present
	Dartmouth College , Hanover, NH B.A. with Honors in Computer Science Minor in Spanish GPA: 3.83 (Magna cum laude)	2014 – 2018
RESEARCH EXPERIENCE	Harvard University , Cambridge, MA <i>Doctoral Research Assistant</i>	2018 – present
	<ul style="list-style-type: none">Working on the Protection Assistant for Wildlife Security (PAWS) to combat illegal wildlife poaching, in collaboration with the World Wide Fund for Nature (WWF). Using machine learning and game theory to build predictive models and plan patrols.	
	Dartmouth College , Hanover, NH <i>Undergraduate Senior Thesis Researcher</i>	2017 – 2018
	<ul style="list-style-type: none">Supervised by Prof. Amro Farid, designed a graphical model of the New England electric grid and performed statistical comparisons with a model produced with hetero-functional graph theory.	
	Dartmouth College Department of Computer Science , Hanover, NH <i>Presidential Scholar Research Assistant</i>	2016 – 2017
	<ul style="list-style-type: none">Supervised by Prof. Emily Whiting, developed a digital reconstruction of the historic Moosilauke Ravine Lodge using photogrammetry. Produced an interactive, VR-compatible model that can be viewed on any modern browser.	
WORK EXPERIENCE	Dartmouth College Department of Computer Science , Hanover, NH <i>Teaching Assistant</i>	2015 – 2018
	<ul style="list-style-type: none">Led small-group sections, held office hours, and graded coursework and exams for 11 courses spanning Algorithms, Object-Oriented Programming, Foundations of Applied Computer Science, and introductory classes for undergraduates and Tuck MBA students.	
	Google , Seattle, WA <i>Software Engineering Intern</i>	Summer 2017
	<ul style="list-style-type: none">Prototyped a highly demand feature that automates the scheduling and deletion of infrastructure deployment for the Google Cloud Deployment Manager team. Released work as an open-source project on Google's GitHub.	
	Dyn, Inc. , Hanover, NH <i>Data Analytics Research Intern</i>	Spring 2016
	<ul style="list-style-type: none">Supervised by Dr. Alin Popescu, developed a process to determine zones of statistical significance in large datasets to analyze latency between servers.	

LEADERSHIP	Ledyard Canoe Club, Secretary, Canoeing Leader 2014 – 2018
	<ul style="list-style-type: none"> • Co-governed club functions for over 100 undergraduates. Managed club assets that include over \$1M in endowments, a student-run canoe and kayak rental business with annual revenues of \$50K, and boats and equipment valued at over \$150K. • Organized an Explorers Symposium featuring ten notable alumni, including Olympic racers and members of National Geographic-sponsored expeditions. • Led a group of twenty-eight students on a nine-day, 220-mile canoe expedition down the Connecticut River. • Voted by my peers to receive the Jay Evans '49 Service Award for commitment to the club.
	Fusion Dance Ensemble, Director 2014 – 2018
	<ul style="list-style-type: none"> • Led a group of fourteen dancers. Choreographed, taught, and performed contemporary and hip-hop dances.
	Dartmouth Sophomore Trips, Director 2015 – 2016
HONORS AND AWARDS	<ul style="list-style-type: none"> • Planned the Sophomore Trips program for 130 undergraduates across 14 three-day outdoor trips throughout New Hampshire and Vermont including hiking, climbing, kayaking, and sailing.
	Dartmouth First-Year Trips, Grant Crew Volunteer Summer 2015
	<ul style="list-style-type: none"> • Served on a nine-person crew for a 21-day, round-the-clock commitment to assist 300 students in five-day outdoor orientation trips including whitewater kayaking, canoeing, and hiking.
	Certificate of Appreciation from the SMART Consortium 2018
	Five Citations for Academic Excellence at Dartmouth College 2014 – 2018
	<i>Special distinction rarely awarded by faculty members “for meritorious characteristics not indicated adequately by academic grades.”</i>
	Computational Photography (Jarosz, CS 89.15)
	Latin American Film (Spitta, Spanish 63.01)
	Computer Graphics (Whiting, CS 77)
	Object-Oriented Programming (Peters, CS 10)
	Introduction to Programming and Computation (Farid, CS 1)
	Adobe Women-In-Technology Scholarship – Honorable Mention 2017
	Rick Angulo World Experience Award 2016
	<i>For “intellectual openness, enthusiasm, and impressive academic performance” following a study abroad program in Cusco, Peru. Award in \$2,000.</i>
	James O. Freedman Presidential Scholar 2016
	Willis S. Fitch '17 Metropolitan Washington Scholarship 2015
	Bank of America's Joe Martin Scholarship 2014
	National Merit Scholar 2014
TEACHING EXPERIENCE	Worked as a teaching assistant for 11 courses at Dartmouth College beginning in freshman spring. Helped design assignments and course material for the first offering of CS 11, and delivered a guest lecture to 70 students.
	<ul style="list-style-type: none"> • CS 1: Intro to Programming and Computation - Fall 2015, Winter 2016, Spring 2017, Fall 2017, Spring 2018 • CS 10: Object-Oriented Programming - Spring 2015, Spring 2016 • CS 11: Foundations of Applied Computer Science - Spring 2018 • CS 31: Algorithms - Winter 2017

- Tuck FWP: Fundamentals of Web Programming - Spring 2017
- Tuck DSA: Data Structures and Analytics - Spring 2017

SERVICE AND OUTREACH

- Presented *AI is for Animals* at the **World Science Festival** Science and Storytime event, attended by 100 elementary school students and parents. New York, NY. (June 2019)
- Hosted a workshop at the Los Angeles Unified School District (LAUSD) **African American Family Day** for students in grades 3–12 and their parents. (May 2019)
- Volunteered as a technical lead at **Hustle N' Code**, a Los Angeles hackathon for youth in public housing developments. My team won first place, and the four students each received a laptop. (December 2018)
- Speaker at the College and Career Day at **Zoo Magnet High School**, presenting *Computer Science for Conservation*. (November 2018)

TECHNICAL SKILLS

Languages: English, Spanish

Programming languages: Python, Java, C/C++, Javascript, MATLAB, R, Bash

Packages: PyTorch, TensorFlow

Software: QGIS, Adobe Photoshop, Adobe InDesign