

# Alexander W. Lee

## Curriculum Vitae

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<https://alexanderwlee.com>

### Education

2018–2022      Amherst College  
B.A. in Computer Science and Mathematics, *summa cum laude*, GPA: 3.95/4.00  
Thesis: DiFFUSR: *Distortion-Free Swap-Randomization for Statistically-Testing Data Mining Results*  
Advisor: Matteo Riondato

### Publications

All publications are available from <https://alexanderwlee.com/publications>

- [1]              Maryam Abuissa, **Alexander Lee**, and Matteo Riondato. “ROHAN: Row-order agnostic null models for statistically-sound knowledge discovery”. In: *Data Mining and Knowledge Discovery* 37.4 (2023), pp. 1692–1718. DOI: 10.1007/s10618-023-00938-4.
- [2]              **Alexander Lee**, Stefan Walzer-Goldfeld, Shukry Zablah, and Matteo Riondato. “A Scalable Parallel Algorithm for Balanced Sampling (Student Abstract)”. In: *Proceedings of the AAAI Conference on Artificial Intelligence*. Vol. 36. 11. 2022, pp. 12991–12992. DOI: 10.1609/aaai.v36i11.21632

### Honors and Awards

2024              NSF Graduate Research Fellowship, National Science Foundation  
*National research fellowship for outstanding STEM graduate students*

2022              The Computer Science Prize, Amherst College  
*Top student in computer science, based on honors thesis and overall achievement*

2022              Phi Beta Kappa, Amherst College  
*National honor society*

### Industry Experience

2022–2024      Software Engineer, Cloud + AI, Microsoft  
*Developed product catalog services that power the company’s commerce platforms*

Summer ‘21      Software Engineer Intern, Cloud + AI, Microsoft  
*Built diagnostic tooling to debug issues in the business’s product catalog services*

Summer '20	Software Engineer Intern, Fidelity <i>Created call routing and productivity software for the company's contact centers</i>
Summer '19	Software Engineer Intern, Health Sqyre <i>Refined the payment microservice for the startup's medical supplies marketplace</i>

## Teaching Experience

### Teaching Assistant

2023–2024	AP CS Principles, Francis Marion School (Microsoft TEALS Program)
Fall '20	COSC 111: Introduction to Computer Science I, Amherst College
Fall '19	COSC 112: Introduction to Computer Science II, Amherst College

### Peer Tutor

Spring '20	COSC 211: Data Structures, Amherst College
Spring '19	COSC 111: Introduction to Computer Science I, Amherst College

## Leadership Experience

Spring '22	Tech Peer Mentor, Amherst College Center for International Student Engagement <i>Mentored a cohort of six international students interested in pursuing careers in tech</i>
Fall '20, Spring '21	President, Amherst College Association for Computing Machinery Student Chapter <i>Led alumni panels, interview prep sessions, and software engineering crash courses</i>

## Undergraduate Coursework

Computer Science	Data Mining, Machine Learning, Artificial Intelligence, Evolutionary Computation, Distributed Algorithms, Parallel and Distributed Computing, Computer Security, Networks, Computer Architecture, Computer Systems, Algorithms, Data Structures, Introduction to Computer Science II, Introduction to Computer Science I
Mathematics	Probability, Real Analysis, Abstract Algebra, Linear Algebra, Discrete Mathematics, Multivariate Calculus, Intermediate Calculus, Introduction to Statistical Modeling

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