

Aaron Lou

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Education	Stanford University PhD in Computer Science	Sep 2021 -
	Cornell University B.A. in Computer Science, B.A. in Mathematics GPA: 3.96/4.0	Aug 2017 - May 2021
Conference Publications	Aaron Lou* , Derek Lim*, Isay Katsman*, Leo Huang*, Qingxuan Jiang, Ser-Nam Lim, & Christopher De Sa. “Neural Manifold Ordinary Differential Equations”. In <i>NeurIPS 2020: Thirty-fourth Conference on Neural Information Processing Systems</i> , December 2020.	
	Aaron Lou* , Isay Katsman*, Qingxuan Jiang*, Serge Belongie, Ser-Nam Lim, & Christopher De Sa. “Differentiating through the Fréchet Mean”. In <i>ICML 2020: the Thirty-seventh International Conference on Machine Learning</i> , July 2020.	
Workshop Publications	Aaron Lou , Maximilian Nickel, Brandon Amos. “Deep Riemannian Manifold Learning”. Will appear at <i>DiffGeo4DL 2020: NeurIPS workshop on Differential Geometry meets Machine Learning</i> , Dec 2020.	
	Horace He, Aaron Lou* , Qingxuan Jiang*, Isay Katsman*, Serge Belongie, & Ser-Nam Lim. “Adversarial Example Decomposition”. In <i>SPML 2019: ICML Workshop on Security and Privacy in Machine Learning</i> , June 2019.	
In Submission	Isay Katsman*, Aaron Lou* , Derek Lim*, Qingxuan Jiang*, Ser-Nam Lim, & Christopher De Sa. “Equivariant Manifold Flows”. Submitted to <i>GTRL 2021: ICLR workshop on Geometric and Topological Representation Learning</i> , Feb 2021.	
Research Experience	Facebook AI Research Intern New York, NY	May 2020 - Aug 2020
	<ul style="list-style-type: none">• Manifold learning w/ Dr. Brandon Amos & Dr. Maximilian Nickel• Topology and data augmentation w/ Dr. Ser-Nam Lim.	
	Cornell University Artificial Intelligence Undergraduate Researcher Ithaca, NY	Aug 2018 - Present
	<ul style="list-style-type: none">• Geometric machine learning w/ Prof. Christopher De Sa.• Adversarial examples w/ Prof. Serge Belongie & Dr. Ser-Nam Lim.	

Industry Experience	Google Software Engineering Intern Mountain View, CA • Google Maps incognito mode w/ Satwika Sarkar	May 2019 - Aug 2019
Invited Talks	<i>Normalizing Flows on Manifolds</i> Guest lecture for Stanford CS 468 <i>Neural Manifold Ordinary Differential Equations</i> Spotlight talk at ICML INNF+ Workshop	Nov 2020 Jul 2020
Awards	NSF Graduate Research Fellowship ICPC North American Championship Bronze Medal ICPC Greater New York Regional Champion Putnam Exam Top 250 Cornell Freshman Math Exam Champion	Mar 2021 Feb 2020 Oct 2019 Dec 2018 May 2018
Teaching	CS 5199 (Competitive Programming) TA CS 2802 (Honors Discrete Structures) TA	Fa, Sp 2019 Sp 2019
Mentorship	Cornell University Artificial Intelligence Co-president Ithaca, NY • Led organization in promoting and providing resources for undergraduate research in machine learning. • Outlined research agenda and mentored team members. • Organized reading groups in specialized topics.	May 2020 - Present
Service	ICML Secondary Reviewer NeurIPS DiffGeo4DL Workshop Reviewer NeurIPS Secondary Reviewer	2021 2020 2020
Coursework	15 PhD-level courses completed during undergraduate at Cornell, including the core graduate math curriculum (corresponds to qualifying exam).	