

Aaron Lou

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Education	Cornell University B.A. in Computer Science, B.A. in Mathematics Ithaca, NY 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”. Will appear at <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.	
Research Experience	Facebook AI Research Intern New York, NY <ul style="list-style-type: none">• Topology and data augmentation w/ Dr. Ser-Nam Lim.• Manifold learning w/ Dr. Brandon Amos & Dr. Maximilian Nickel	May 2020 - Aug 2020
	Cornell University Artificial Intelligence Undergraduate Researcher Ithaca, NY <ul style="list-style-type: none">• Geometric machine learning w/ Prof. Christopher De Sa.• Adversarial examples w/ Prof. Serge Belongie & Dr. Ser-Nam Lim.	Aug 2018 - Present
Industry Experience	Google Software Engineering Intern Mountain View, CA <ul style="list-style-type: none">• 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	Nov 2020
	<i>Neural Manifold Ordinary Differential Equations</i> Spotlight talk at ICML INNF+ Workshop	Jul 2020

Awards	ICPC North American Championship Bronze Medal	Feb 2020
	ICPC Greater New York Regional Champion	Oct 2019
	Putnam Exam Top 250	Dec 2018
	Cornell Freshman Math Exam Champion	May 2018
Teaching	CS 5199 - Competitive Programming	Spring 2019, Fall 2019
	CS 2802 - Honors Discrete Structures	Spring 2019
Service	Mentorship	
	CUAI Co-President	May 2020 - Present
	<ul style="list-style-type: none"> • Led organization in promoting and providing resources for undergraduate research in machine learning. • Outlined research agenda and mentored team members. • Organized reading groups in advanced topics. 	
	Community Contributions	
	NeurIPS 2020 DiffGeo4DL Workshop - Reviewer	
	NeurIPS 2020 - Secondary Reviewer	
Graduate Coursework	Completed during undergrad at Cornell (6xxx is PhD level)	
	<ul style="list-style-type: none"> • CS 6784 – Deep Generative Models • CS 6787 – Advanced Machine Learning Systems • Math 6110 – Real Analysis • Math 6120 – Complex Analysis • Math 6310 – Abstract Algebra I • Math 6320 – Abstract Algebra II • Math 6410 – Enumerative Combinatorics • Math 6520 – Differentiable Manifolds • Math 6710 – Probability Theory I • ORIE 6300 – Mathematical Programming I 	