

# Sanyam Kapoor

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<b>Education</b>	<b>New York University</b> , <i>PhD in Data Science</i> Sep 2020 - present Advisors: Andrew Gordon Wilson, Rajesh Ranganath <ul style="list-style-type: none"><li>Center for Data Science Fellowship, CDS</li></ul>
	<b>New York University</b> , <i>MS in Computer Science</i> Sep 2017 - May 2019 Advisor: Joan Bruna <ul style="list-style-type: none"><li>Masters Thesis Fellowship, Courant Institute, Fall 2018</li></ul>
	<b>IIT Hyderabad</b> , <i>BTech in Computer Science</i> Aug 2012 - May 2016 <ul style="list-style-type: none"><li>TODAI Scholarship, University of Tokyo, Spring 2013</li><li>Academic Excellence Award, Fall 2012</li></ul>
<b>Publications</b> <i>as of Dec 2020</i>	<b>Kapoor, S.</b> , Karaletsos, T., and Bui, T. D. Variational Auto-Regressive Gaussian Processes for Continual Learning. In <i>ICML Workshop on Continual Learning</i> , 2020. <a href="https://arxiv.org/abs/2006.05468">https://arxiv.org/abs/2006.05468</a> <b>Moskovitz, T.</b> , Wang, R., Lan, J., <b>Kapoor, S.</b> , Miconi, T., Yosinski, J., and Rawal, A. First-Order Preconditioning via Hypergradient Descent. In <i>Beyond First Order Methods in ML NeurIPS Workshop</i> , 2019. <a href="https://arxiv.org/abs/1910.08461">https://arxiv.org/abs/1910.08461</a> <b>Kapoor, S.</b> Leveraging Communication for Efficient Sampling, 2019. <i>Masters thesis</i> . <a href="https://cs.nyu.edu/media/publications/kapoor_sanyam.pdf">https://cs.nyu.edu/media/publications/kapoor_sanyam.pdf</a> <b>*Resnick, C.</b> , <b>*Raileanu, R.</b> , <b>Kapoor, S.</b> , Peysakhovich, A., Cho, K., and Bruna, J. Backplay: “Man muss immer umkehren”. In <i>AAAI Workshop on Reinforcement Learning in Games</i> , 2019. <a href="https://arxiv.org/abs/1807.06919">https://arxiv.org/abs/1807.06919</a> <b>Kapoor, S.</b> Multi-Agent Reinforcement Learning: A Report on Challenges and Approaches, 2018. <i>Technical report</i> . <a href="https://arxiv.org/abs/1807.09427">https://arxiv.org/abs/1807.09427</a>
<b>Industry Experience</b>	<b>Uber AI Labs</b> , US - <i>Resident</i> Aug 2019 - Jul 2020 <ul style="list-style-type: none"><li>Accepted to the competitive program (less than 1% acceptance rate)</li><li>Research topics include <i>Bayesian</i> inference, reinforcement learning, bandits</li></ul>
	<b>Google</b> , US - <i>Software Engineering Intern</i> May 2018 - Aug 2018 <ul style="list-style-type: none"><li>Implemented end-to-end Natural Language Code Search on Kubeflow</li><li>Demo proposal accepted to KubeCon North America 2018</li></ul>
	<b>Headout</b> , India - <i>Software Engineer</i> Dec 2016 - Jul 2017 <ul style="list-style-type: none"><li>Led internal developer tooling; reduced onboarding from days to 1/2 hour</li><li>Slashed application deployment and rollback downtime by 99%</li></ul>
	<b>StoryXpress</b> , India - <i>Co-Founder</i> May 2013 - Aug 2016 <ul style="list-style-type: none"><li>Designed &amp; built the cloud video service for economical video creation at scale</li><li>Handled 2000+ videos/month, authored APIs and website for clients like <i>Target</i></li></ul>
<b>Technical Skills</b>	<b>Languages:</b> Python, Node, Javascript, C, C++, Java <b>Technologies:</b> PyTorch, TensorFlow, Pyro PPL, CUDA, MySQL, React, Docker, Ansible, OpenGL

<b>Research Experience</b>	<b>Information-theoretic reinforcement learning</b>	Sep 2019 - Jan 2020
	Advisors: <i>Thang D. Bui, Theofanis Karaletsos, Matthias Poloczek</i>	
	<ul style="list-style-type: none"> <li>• Mutual information measures for model predictive control</li> </ul>	
	<b>Representation learning for RL</b>	Sep 2019 - Nov 2019
	Advisors: <i>Jeff Clune, Ashley Edwards</i>	
	<ul style="list-style-type: none"> <li>• Contrastive loss based representations for <i>Go-Explore</i></li> </ul>	
	<b>Survival Analysis for Time-Dependent Covariates</b>	Oct 2018 - Dec 2018
	Advisor: <i>Rajesh Ranganath</i>	
	<ul style="list-style-type: none"> <li>• <i>Deep Markov Models</i> for physiology of ICU patients</li> </ul>	
	<b>Cooperative zero-sum games</b>	Mar 2018 - May 2018
	Advisors: <i>Joan Bruna, Cinjon Resnick</i>	
	<ul style="list-style-type: none"> <li>• Q-Learning and Curriculum Learning for non-stationary multi-agent systems</li> </ul>	
<b>Honors &amp; Awards</b>	<b>StackOverflow Top Contributor:</b> Reputation 5.5k (top 7% overall as of Dec 2020); answers reached ~2 million people, 2020	
	<b>NASSCOM Emerge 50:</b> <i>StoryXpress</i> among top startups from 500+ across India for innovation impact, 2015	
	<b>HYSEA Best Software Product, Student Innovation:</b> <i>StoryXpress</i> winner among 100+ startups, 2015	
	<b>Microsoft Build the Shield:</b> First Runner up among 280 teams across India, 2015	
	<b>ACM ICPC Amritapuri Regionals:</b> Finalist among 1500+ teams, 2013	
	<b>Joint Entrance Exam (JEE):</b> Top 0.5% among 0.5 million students across India for undergraduate admissions, 2012	
<b>Teaching Experience</b>	<b>Head Grader</b> , <i>Machine Learning</i> , NYU	Spring 2019
	<b>Teaching Assistant</b> , <i>Introduction to Machine Learning</i> , NYU	Spring 2019
	<b>Section Leader</b> , <i>Inference and Representation</i> , NYU	Fall 2018
	<b>Grader</b> , <i>Introduction to Machine Learning</i> , NYU	Fall 2018
	<b>Recitation Leader</b> , <i>Data Structures</i> , NYU	Spring 2018
	<b>Grader</b> , <i>Machine Learning</i> , NYU	Spring 2018