

# Archit Sharma

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## Education

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### Stanford University

PhD in Computer Science

Jan' 21 – Present

### IIT Kanpur

B.Tech in Electrical Engineering, GPA: 9.9/10

Jul' 14 – Jun' 18

Minors: Machine Learning, Linguistics

## Experience

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### Google

AI Resident

Deep Reinforcement Learning at Google Brain Robotics.

Mountain View, CA

Jul' 18 – Dec' 20

### IIT Kanpur

Undergraduate Researcher, Supervisor: Piyush Rai

Expectation Maximization algorithms for Mixture-of-Experts.

Kanpur, India

Aug' 17 – Apr' 18

### Mila - Quebec Artificial Intelligence Institute

Research Intern, Supervisor: Yoshua Bengio

Gradient estimation across discrete latent variables in Deep Neural Networks.

Montreal, QC, Canada

May' 17 – Aug' 17

## Articles

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Jongwook Choi, **Archit Sharma**, Sergey Levine, Honglak Lee, and Shixiang Gu. *Variational Empowerment as Representation Learning for Goal-Based Reinforcement Learning*. Deep RL Workshop, NeurIPS, 2020.

**Archit Sharma**, Michael Ahn, Sergey Levine, Vikash Kumar, Karol Hausman, and Shixiang Gu. *Emergent Real-World Robotic Skills via Unsupervised Off-Policy Reinforcement Learning*. Robotics: Science and Systems (RSS), 2020.

**Archit Sharma**, Shixiang Gu, Sergey Levine, Vikash Kumar, and Karol Hausman. *Dynamics-Aware Unsupervised Discovery of Skills*. International Conference on Learning Representations (ICLR), 2020 (**Oral Presentation, <2% rate**).

**Archit Sharma\***, Siddhartha Saxena\*, and Piyush Rai. *A flexible probabilistic framework for large-margin mixture of experts*. Machine Learning (2019) 108: 1369, 2019.

## Honors

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### General Proficiency Medal

Graduating with the highest GPA among EE graduates.

2018

### Motorola Gold Medal

Overall achievement among CS/EE graduates.

2018

<b>Proficiency Prize</b> Outstanding Undergraduate Research.	2018
<b>Lalit Narain Das Memorial Scholarship</b> Best Senior Student in Electrical Engineering, IIT Kanpur	2018
<b>Sri Singhasan Singh Scholarship</b> Highest GPA in Electrical Engineering, IIT Kanpur	2017
<b>Academic Excellence Award</b> Equivalent to Dean's list.	2015, 2016, 2017
<b>Joint Entrance Examination</b> All India Rank 376 out of 150,000 students.	2014
<b>National Talent Search Scholarship (NTSE)</b> Awarded to 1000 students by Govt. of India.	2010

## Miscellaneous

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**Entry on Google AI Blog:** Unsupervised Reinforcement Learning for Skill Discovery

**Reviewing:** ICLR, NeurIPS, ICRA

**Talks:**

- Dynamics-Aware Unsupervised Discovery of Skills: Oral Presentation at ICLR 2020, Task-agnostic Reinforcement Learning at ICLR 2019 and Stanford University
- Emergent Real-World Robotic Skills: Talk at RSS 2020
- Gradients for Discrete Latent Variables: Machine Learning Research Day, IIT Kanpur

**Project Mentorship:** Mentored research projects in graduate course CS698X: Topics in Probabilistic Modeling and Inference