

Education

- **Mila, University of Montreal** Montreal, Canada
PhD in Machine Learning, supervised by Aaron Courville Fall 2017 - Present
- **Indian Institute of Technology (IIT), Kharagpur** Kharagpur, India
Integrated M.Sc. in Mathematics and Computing 2011 - 2016

Publications

- **Procedural Generalization by Planning with Self-Supervised World Models** ([arxiv](#))
*Ankesh Anand**, Jacob Walker*, Yazhe Li, Eszter Vrtes, Julian Schrittwieser, Sherjil Ozair, Thophane Weber, Jessica B. Hamrick
Under Review
- **Pretraining Representations for Data-Efficient Reinforcement Learning** ([arxiv](#))
Max Schwarzer, Nitarshan Rajkumar, Michael Noukhovitch, Ankesh Anand, Laurent Charlin, Devon Hjelm, Philip Bachman, Aaron Courville
Neural Information Processing Systems (NeurIPS), 2021
- **Data-Efficient Reinforcement Learning with Self-Predictive Representations** ([arxiv](#))
Max Schwarzer, Ankesh Anand**, Rishab Goel, R Devon Hjelm, Aaron Courville, Philip Bachman
Internal Conference on Learning Representations (ICLR), 2021 (Spotlight)
- **Unsupervised State Representation Learning in Atari** ([arxiv](#))
*Ankesh Anand**, Evan Racah*, Sherjil Ozair*, Yoshua Bengio, Marc Cote, Devon Hjelm
Neural Information Processing Systems (NeurIPS), 2019
- **Blindfold Baselines for Embodied QA** ([arxiv](#))
Ankesh Anand, Eugene Belilovsky, Kyle Kastner, Hugo Larochelle, Aaron Courville
ViGIL Workshop at Neural Information Processing Systems (NeurIPS), 2018
- **HoME: a Household Multimodal Environment** ([arxiv](#))
Simon Brodeur, Ethan Perez, Ankesh Anand*, Florian Golemo*, Luca Celotti, Florian Strub, Jean Rouat, Hugo Larochelle, Aaron Courville*
International Conference on Learning Representations (ICLR) Workshop Track, 2018
- **We used Neural Networks to Detect Clickbaits: You won't believe what happened Next!** ([arxiv](#))
Ankesh Anand, Tanmoy Chakraborty, Noseong Park
European Conference on Information Retrieval (ECIR), 2017
- **MMGAN: Manifold Matching Generative Adversarial Networks** ([arxiv](#))
Noseong Park, Ankesh Anand, Joel Ruben Antony Moniz, Kookjin Lee, Tanmoy Chakraborty, Jaegul Choo, Hongkyu Park, Youngmin Kim
International Conference on Pattern Recognition (ICPR), 2018

Work Experience

- **DeepMind** London, UK
Research Intern, Advisor: Jessica Hamrick *Feb 2021-June 2021*
 - Worked on identifying generalization capabilities of MuZero, and how to amplify them using self-supervised learning.
 - The internship project led to a first-author paper: [Procedural Generalization by Planning with Self-Supervised World Models](#)
- **Microsoft Research** Montreal, Canada
Research Intern, Advisor: Philip Bachman *Sept 2019-May 2020*
 - Worked on self-supervised learning for data-efficient RL.
 - The internship project led to a first-author publication: [Data-Efficient Reinforcement Learning with Self-Predictive Representations](#)
- **Microsoft Research** Montreal, Canada
Research Intern, Advisor: Marc Cote, Devon Hjelm *January-June 2019*
 - Research at the intersection of Reinforcement Learning and Representation Learning.
 - The internship project led to a first-author publication at NeuRIPS'19: [Unsupervised State Representation Learning in Atari](#)
- **VISA Inc.** Bangalore, India
Software Engineer *August 2016-August 2017*
 - Full stack development for the VISA Developer Platform
- **Google Summer of Code** Remote
Student Developer *May-August 2015*
 - Built an online analytics platform for BRL-CAD which provides aggregated analytics for logs and performance metrics collected across different machines and platforms.

Miscellaneous

- Founded the [Mila Blog](#), and served as the Lead Editor for the blog from 2020-2021.
- Organized the 1st [Self-Supervision for Reinforcement Learning Workshop](#) at ICLR 2021.
- Served as the Teaching Assistant for Mila's inaugural Self-Supervised Learning course in Fall 2020.
- Served as a reviewer for NeurIPS 2021 and ICLR 2021.

Technical Skills

- **Programming Languages:**
 - **Proficient:** Python, JavaScript, C++
- **Machine Learning Libraries:** PyTorch, JAX, scikit-learn, numpy, Pandas
- **Web Development:** Django, Flask, NodeJS, ReactJS, HTML5, CSS3, MySQL