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Gautam Singh

Education

2018–present	**Ph.D. in Computer Science**, Rutgers University
	Advisor: Sungjin Ahn GPA: 4.0
2011–2015	**B.Tech.**, Indian Institute of Technology Guwahati
	Electronics and Communication Engineering (Major) and Computer Science (Minor)

Research Interests

My aim is to develop artificial agents which can perform unsupervised learning of world models from raw observations. To achieve this, I focus on

- How to recover modular, object-centric and causal structure from data.
- Modeling stochasticity and dealing with partial-observability.
- Using the world model to benefit model-based Reinforcement Learning (RL).

Selected Conference Publications   (* denotes equal contribution)

ICML 2020	**Robustifying Sequential Neural Processes**
	Jaesik Yoon, Gautam Singh, Sungjin Ahn
ICLR 2020	**SPACE: Unsupervised Object-Oriented Scene Representation via Spatial Attention and Decomposition**
	Zhixuan Lin*, Yi-Fu Wu*, Skand Peri*, Weihao Sun, Gautam Singh, Fei Deng, Jindong Jiang, Sungjin Ahn
NeurIPS 2019	**Sequential Neural Processes**
	Gautam Singh*, Jaesik Yoon*, Youngsung Son, Sungjin Ahn
	Spotlight presentation

Work Experience

2015-2018	**IBM Research**, *Research Scientist*, India Research Lab (IRL), New Delhi, India.
	Lead developer for Watson Question Assistant, a system for automatic tagging of user symptom and intent in support tickets using ESG natural language parser.
May-Jul 2014	**Korea Advanced Institute of Science and Technology (KAIST)**, *Intern*, Department of Knowledge Service Engineering, Daejeon, South Korea.
	Matching concepts in ontologies in Korean-English cross-lingual domain.

May-Jul 2013 **Indian Institute of Technology Madras**, *Intern*, Department of Computer Science, Chennai, India.

Awards

2018 **Research Division Award**, *IBM Research*.
Awarded to select research employees globally for outstanding work.

2017 **Research Division Award**, *IBM Research*.
Awarded to select research employees globally for outstanding work.

Teaching

2018 **Numerical Analysis and Computing**, *Teaching Assistant*, Rutgers University.

2019, 2020 **Computer Architecture**, *Teaching Assistant*, Rutgers University.