

Sawan Kumar

303, Machine and Language
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RESEARCH INTERESTS	I am interested in Machine Learning (ML), and Natural Language Processing (NLP). My current research focus is on exploiting natural language knowledge for machine learning.
EDUCATION	<p>PhD, Computational and Data Sciences, 2017-present (CGPA: 9.3) Indian Institute of Science (IISc), Bangalore, India Advisor : Partha Pratim Talukdar</p> <p>M.Tech, Telecommunication Systems, 2007-2012 (CGPA: 8.25) Indian Institute of Technology (IIT) Kharagpur, India Advisor : Suvra Sekhar Das</p> <p>B.Tech, Electronics and Electrical Communication, 2007-2012 (CGPA: 8.25) Indian Institute of Technology (IIT) Kharagpur, India</p>
RESEARCH EXPERIENCE	<p>Department of Computational and Data Sciences (CDS), IISc, Bangalore, 2017- present Machine and Language Learning (MALL) Lab</p> <ul style="list-style-type: none">— Learning from and generating natural language explanations— Overcoming the supervision bottleneck for concept learning through natural language knowledge <p>Cognition Lab (Centre for Neuroscience, IISc), 2017-2018</p> <ul style="list-style-type: none">— Creating efficient methods for evaluating whole brain connectomes
WORK EXPERIENCE	<p>Amazon India, Bangalore, 2018 Applied Scientist Intern (3 months)</p> <ul style="list-style-type: none">— Worked on improving natural language question-answering systems <p>Ittiam Systems, Bangalore, 2015-2016 Senior Engineer, Computer Vision and Machine Learning</p> <ul style="list-style-type: none">— Contributed to the development of video analytics solutions for the retail industry— Worked towards object identification, face recognition, and identifying demographic information <p>Ittiam Systems, Bangalore, 2012-2015 Engineer/Senior Engineer, Multimedia Systems</p> <ul style="list-style-type: none">— Developed device drivers, abstraction layers for device drivers for embedded systems
PUBLICATIONS	[1] Kumar, S., Jat, S., Saxena, K., & Talukdar, P. (2019, July) Zero-shot Word Sense Disambiguation using Sense Definition Embeddings. Accepted at The 57th Annual Meeting of the Association for Computational Linguistics (ACL), 2019.

[2] Kumar, S., Sreenivasan V., Talukdar P., Pestilli F., & Sridharan D. (2019, January) ReAI-LiFE: Accelerating the discovery of individualized brain connectomes on GPUs. Accepted to The Thirty-Third AAAI Conference on Artificial Intelligence (AAAI-19), Honolulu, USA. (Proceedings in press).

[3] Kant, A., Suman, P. K., Giri, B. K., Tiwari, M. K., Chatterjee, C., Nayak, P. C., & Kumar, S. (2013). Comparison of multi-objective evolutionary neural network, adaptive neuro-fuzzy inference system and bootstrap-based neural network for flood forecasting. *Neural Computing and Applications*, 23(1), 231-246.

TEACHING

E1 246: Natural Language Understanding, Indian Institute of Science, Spring 2019
Teaching assistant for Prof. Partha Talukdar

SOFTWARE

ReAI-LiFE: Accelerating the discovery of individualized brain connectomes with GPUs
(<https://github.com/Sawankumar28/real-life>)