Anshul Bawa

Research Fellow, Microsoft Research India

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EDUCATION

Jul 2012 - Jun 2017 l B.Tech & M.Tech in Computer Science

Indian Institute of Technology Delhi

B.Tech CGPA : 8.92 / 10   M.Tech CGPA: 8.45 / 10

PUBLICATIONS

"Interplay of Speech and Gesture", Anshul Bawa, Sumeet Agarwal, R Rajkumar. *4th Annual Conference of the Association for Cognitive Science, India (ACCS 2017)*

PROJECTS

Jul 2017 - present Accommodation in bilingual conversations

With Monojit Choudhury, Microsoft Research India

Quantifying interpersonal accommodation and reciprocity of intrasentential codeswitching (language mixing) as a dimension of linguistic style accommodation in bilingual conversations on Twitter and Hindi movies

Jul 2016 - Jun 2017 Semantics of Co-Speech Gestures

With Sumeet Agarwal, IIT Delhi and R Rajkumar, IIT Delhi

Cross-modality semantic integration of spontaneous gestures with speech. Employed neural networks to predict gesture type. Production rate analysis revealed theoretical differences between gesture types.

Jan 2017 - May 2017 Deep Reinforcement Learning for Dialog

With Mausam, IIT Delhi

Used generative adversarial networks for natural language generation. Improved training curriculum and reward function to generate coherent responses and longer conversations. Improved discriminator stability.

Feb - Apr 2016 Cerebral Lateralisation of Visual Processing

With Varsha Singh, IIT Delhi

Designed and ran a 60-subject cognitive behavioural study on extent of lateralisation of visual top-down and bottom-up processing. Confirmed significant effects of hemispheric presentation and task selection. Found novel significant correlations between lateralisation & task performance.

Aug - Nov 2015 Bayesian Structure Learning in Cognition

With Sumeet Agarwal, IIT Delhi

Modelled heuristic-driven human learning of ontologies in a Bayesian learning framework. Applied t-SNE to improve concept extraction and explain cognitive biases of representativeness heuristic and availability heuristic on children's learning of phylogenetic categorisation of animals.

May - Jul 2015 Size Estimation in Big-Data Pipelines

With Kaushik Rajan, Microsoft Research India

RESEARCH INTERESTS

NLP, Machine Learning, Computational Linguistics, Computational Cognitive Science

SCHOLASTIC ACHIEVEMENTS

- Outstanding TA award; 2017
- IITD Silver Medal, Academic Excellence; 2012
- Life Member, Mensa High IQ society; 2011
- IITD Merit Semester Scholar; 2012, 2013
- IITD International Student Exchange to INSA Toulouse, France; 2014
- Student of the Year, Budha Dal School; 2012
- IIT-JEE All India Rank of 178; 2012

TECHNICAL SKILLS

Python, MATLAB, Java, C++, SQL, LaTeX, CUDA, git