## Vivek Gupta

Machine Learning & Natural Language Processing

CONTACT University of Utah http://vgupta123.github.io INFORMATION 543 South 900 East, Aprt. C6, Salt Lake City keviv9@gmail.com

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RESEARCH Representation Learning, Structured Prediction, Extreme Classification, Resource Constraint Machine Learning, Semi Supervised Learning and Anomaly detection, Ethics in Machine Learning

CURRENT School of Computing, University of Utah (Aug 2018 - Present)
POSITION Graduate Research Assistant Advisor: Prof. Vivek Srikumar

EDUCATION University of Utah (Aug 2018 - Present)

PhD, Computer Science, School of Computing

Advisor: Prof. Vivek Srikumar

CGPA: 3.67/4

Indian Institute of Technology Kanpur (July 2015 - May 2016)

M. Tech with Honors in Computer Science and Engineering

Advisor: Prof. Harish Karnick

CGPA: 9.3/10

Indian Institute of Technology Kanpur (July 2011 - July 2015)

B. Tech with Honors in Computer Science and Engineering

CGPA: 7.5/10

EMPLOYMENT Microsoft Research Lab, India (Oct 2016 - Aug 2018)

Research Fellow, Machine Learning and Natural Language Application Advisors: Dr. Nagarajan

Natarajan, Dr. Praneeth Netrapalli & Dr. Prateek Jain

Scholastic Selected among the top 7 finalist in Ericson's Innovation Awards, India in 2016

ACHIEVEMENTS Secured All India Rank 183 in IIT-JEE 2011 amongst more than 500,000 candidates

Qualified for Kishore Vaigyanik Protsahan Yojana (KVPY) scholarship, 2011

Selected among top 1% of students in India, Indian National Physics Olympiads, 2011

Selected among top 1% of students in India, Indian National Chemistry Olympiads, 2011

Publications Li, T., **Gupta, V.**, Mehta, M., Srikumar, V., Alogic-Driven Framework for Consistency of Neural Models, to appear in **EMNLP-IJCNLP 2019** (Oral)

Gupta, V., Wadbude, R., Natararjan, N., Karnick, H., Jain, P., Rai, P., "Distributional Semantics meet Multi-Label Learning", AAAI 2019 (Oral) [Paper][PPT][Poster]

 $Raunak,\ V., \textbf{Gupta},\ \textbf{V.}, Metze,\ F.,\ \textit{Effective Dimensionality Reduction for Word Embeddings},$ 

RepL4NLP 2019, [Paper][Poster]

Raunak, V., Gupta, V., Kumar, V., Metze, F., On Dimensional Linguistic Properties of the Word Embedding Space, presented at ACL-SRW 2019 (non-archival)

**Gupta, V.**,Saw A.,Gupta, H., Nokhiz,P., Talukdar, P., On Dimensional Linguistic Properties of the Word Embedding Space, presented at **NAACL-SRW 2019** (non-archival)

Dohare, S., **Gupta**, V., Karnick, H. "Unsupervised Semantic Abstractive Summarization", ACL-SRW 2018 (Workshop) [Paper][Poster]

Mekala, D.\*, **Gupta, V.**\*, Paranjape, B., Karnick, H. "Sparse Composite Document Vectors using soft clustering over distributional representations", **EMNLP 2017** (Long Oral) [Paper] [PPT]

Gupta, V., Karnick, H., Bansal, A., Jhala, P. "Product Classification in E-Commerce using Distributional Semantics", COLING 2016 (Long Poster) [Paper]

Wadbude, R., **Gupta**, V., Mekala, D., Karnick, H., "User Bias Removal in Review Score Prediction", Accepted in **CODS-COMAD 2018** (Oral) & **DAB 2017** (Workshop) [Paper][Poster]

Gupta, V., Mittal, S., Bhaumik, S., Roy, R. "Assisting Humans to Achieve Optimal Sleep by Changing Ambient Temperature", BIBM 2016, BHI 2016 & HI-DS 2016 (Oral) [Paper]

Master Thesis

## Product Categorization in E-Commerce using Distributional Semantics

Advisors: Prof. Harish Karnick (IIT Kanpur) & Pradhuman Jhala (Flipkart.com) [Thesis][PPT]

- Proposed a novel distributional semantics representation for text documents
- Proposed a two-level ensemble approach utilizing (with respect to the taxonomy tree) a path-wise, node-wise and depth-wise classifiers for product classification

RESEARCH Internship

## IBM Research, Thomas J. Watson Research Center

May 2019 - Aug 2019

Contrastive Explanations for Natural Language Processing Manager)

Dr. Kush R Varshney (Research

## Microsoft Research India, Bangalore

(May 2016 - Jul 2016)

Estimation of generalization error for ensembles Dr. Sundararajan Sellamanickam (Principal Applied Scientist)

Flipkart Internet Pvt. Ltd., Bangalore

(May 2015 - July 2015)

Web Scale Product Classification

Pradhuman Jhala (Principal Architect)

Samsung R&D Institute, Bangalore

(May 2014 - July 2014)

Mobile and Healthcare Solution Y2014 Sandip Bhaumik (Group Manager) & Raj Roy (Manager)

Professional Service Program Committee: AAAI 2020, NAACL 2019, ACL SRW 2019. ACL SRW 2018

Meta Reviewer: Served as a reviewer for long and short papers of EMNLP 2017 conference.

**Coordinator**: Initiated and managed Special Interest Group in Machine Learning at Computer Science and Engineering Department, IIT Kanpur. Organized regular meetups for discussions and talks on topics in Machine Learning and related fields.

**Teaching Assistant**: for MLT 2016 - Machine Learning Tool and Technique: Mentored a group of 30 M-Tech students part of an introductory course on Machine Learning. Set up a labeling software for project work, resulting in a new dataset.

**Student Secretary** & **Student Mentor**: in Promotion of Work Experience and Research PoWER & Alumni Contact Program (ACA) under Office of Dean of Research and Development IIT Kanpur

**Student Volunteer**: for mentoring and teaching underprivileged students of primary classes from nearby village(Nankari) at Prayas, IIT Kanpur.

Talks & Seminars

I had the opportunity to present my work at various places which I thoroughly enjoyed.

[Talks]

STUDENT MENTORSHIP I have been extremely lucky to mentor some amazing students.

[Students Mentored]

TRAVEL
GRANTS &
SCHOLARSHIP

I have been fortunate to receive scholarships/grants at several occasions to support my education and research. [Travel Grants]