Shashank Gupta

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EDUCATION

University of Illinois at Urbana Champaign *(Aug'15 - Dec'17)*
M.S., Computer Science
Thesis Adviser: Prof. Dan Roth

Birla Institute of Technology and Science, Pilani, India *(Aug'08 - June'12)*
B.E. (Hons.), Computer Science

INDUSTRIAL
EXPERIENCE

- **Applied Scientist**: Allen Institute for AI (AI2), Seattle, WA *(Oct'22 - Present)*
  Themes: AI for Scientific Discovery, Multi-hop-Reasoning;
  LLM self-verification; Biases in LLM

- **Applied Scientist**: Microsoft AI, Redmond, WA *(Apr'18 - Sept'22)*
  Themes: Multi-Task Learning; Mixture-of-Experts; Efficient Fine-tuning;
  Dialogue Systems; Domain Adaptation

- **Research Assistant**: Yahoo Labs, India *(June - Dec'12)*
  Themes: ML for Display Ad optimization; User-Response Prediction

- **Research Intern**: Yahoo R&D, India *(Jan - June'12)*
  Themes: ML for Search Ad Optimization; User-Response Prediction

ACADEMIC
RESEARCH
EXPERIENCE

Research Assistant:
- **UIUC**: Cognitive Computation Group *(Aug'15 - Dec'17)*
  Themes: Zero-shot Text Classification; Text Generation; Structured Prediction

- **Max Planck Institute (MPI)**, Databases & Info. Sys. Group *(Aug'14 - April'15)*
  Themes: Entity Disambiguation; Automated KB Construction

- **IIT-Bombay**: InfoLab *(Jan'13 - June'14)*
  Themes: Entity Search & Disambiguation; Distributed Indexing

SELECTED
PUBLICATIONS

7. Bias Runs Deep: Implicit Reasoning Biases in Persona-Assigned LLMs.
   S. Gupta, V. Shrivastava, A. Deshpande, A. Kalyan, P. Clark, A. Sabharwal, T. Khot
   International Conference on Learning Representations (ICLR), 2024 [pdf]

6. Self-Refine: Iterative Refinement with Self-Feedback.
   A. Madaan, N. Tandon, P. Gupta, S. Hallinan, L. Gao, S. Wiegreffe, U. Alon, N. Dziri, S. Prabhu-moye, Y. Yang, **S. Gupta**, B. P. Majumder, K. Hermann, S. Welleck, A. Yazdanbakhsh, P. Clark
   Conference on Neural Information Processing Systems (NeurIPS), 2023 [pdf][code][project]

5. Sparsely Activated Mixture-of-Experts are Robust Multi-Task Learners.
   S. Gupta, S. Mukherjee, K. Subudhi, E. Gonzalez, D. Jose, A. H. Awadallah, J. Gao
   ArXiV, 2022 [pdf]

4. Knowledge Infused Decoding.
   R. Liu, G. Zheng, **S. Gupta**, R. Gaonkar, C. Gao, S. Vosoughi, M. Shokouhi, and A.H. Awadallah
   International Conference on Learning Representations (ICLR), 2022 [code][pdf]

3. Exploring Low-Cost Transformer Model Compression for Large-Scale Commercial Reply Suggestions.
   V. Shrivastava*, R. Gaonkar*, **S. Gupta***, A. Jha
   *Equal Contribution
   Microsoft Journal of Applied Research (MSJar), 2021 [pdf]

2. CogCompNLP: Your Swiss Army Knife for NLP
   D. Khashabi, M. Sammons, B. Zhou, T. Redman, C. Christodoulopoulos, V. Srikumar, N. Rizzolo, L. Ratinov, G. Luo, Q. Do, C. T. Tsai, S. Roy, S. Mayhew, Z. Feng, J. Wieting, X. Yu, Y. Song, **S. Gupta**, S. Upadhyay, N. Arivazhagan, Q. Ning, S. Ling, D. Roth
   International Conference on Language Resources and Evaluation (LREC), 2018 [code][pdf]

1. Web-scale Entity Annotation Using MapReduce
   S. Gupta, V. Chandramouli, S. Chakrabarti
   International Conference on High Performance Computing (HiPC), 2013   [project][pdf]

TEACHING EXPERIENCE	**Teaching Assistant**:

Teaching Assistant:
- **UIUC**: Machine Learning, CS446 *(Aug - Dec'16)*
- **IIT-Bombay**: Web Search and Mining, CS635 *(July - Nov'13)*
- **BITS-Pilani**: Operating Systems, CS C372 *(Aug - Dec'11)*

TECHNICAL SKILLS

Languages: *Proficient*: Python | *Intermediate*: Java | *Basic*: C++, HTML/CSS, JavaScript
Toolkits: PyTorch, Tensorflow, HuggingFace, AzureML, Hadoop, CogComp-NLP

REFERENCES

Peter Clark, *Senior Research Manager, AI2* | peterc@allenai.org
Milad Shokouhi, *Partner Applied Scientist, Microsoft AI* | milads@microsoft.com
Ahmed H. Awadallah, *S. Principal Research Manager, MSR* | hassanam@microsoft.com
Dan Roth, *Distinguished Professor, UPenn* | danroth@seas.upenn.edu
Soumen Chakrabarti, *Professor, IIT-Bombay* | soumen@cse.iitb.ac.in