

# Shashank Gupta

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CONTACT	Email: shashank.nlp@gmail.com; shashankg@allenai.org Homepage: <a href="https://shashankgupta.info/">https://shashankgupta.info/</a>	
EDUCATION	<b>University of Illinois at Urbana Champaign</b> M.S., Computer Science Thesis Adviser: Prof. Dan Roth	(Aug'15 - Dec'17)
	<b>Birla Institute of Technology and Science, Pilani, India</b> B.E. (Hons.), Computer Science	(Aug'08 - June'12)
INDUSTRIAL EXPERIENCE	<ul style="list-style-type: none"><li>• <b>Applied Scientist:</b> Allen Institute for AI (Ai2), Seattle, WA <i>Themes: LLM Post-Training; Agents; Reasoning; Tool-Use; Computer-Use</i></li><li>• <b>Applied Scientist:</b> Microsoft AI, Redmond, WA <i>Themes: Multi-Task Learning; Mixture-of-Experts; Efficient Fine-tuning; Dialogue Systems; Domain Adaptation</i></li><li>• <b>Research Assistant:</b> Yahoo Labs, India <i>Themes: ML for Display Ad optimization; User-Response Prediction</i></li><li>• <b>Research Intern:</b> Yahoo R&amp;D, India <i>Themes: ML for Search Ad Optimization; User-Response Prediction</i></li></ul>	<i>(Oct'22 - Present)</i> <i>(Apr'18 - Sept'22)</i> <i>(June - Dec'12)</i> <i>(Jan - June'12)</i>
ACADEMIC RESEARCH EXPERIENCE	<b>Research Assistant:</b> <ul style="list-style-type: none"><li>• <b>UIUC:</b> Cognitive Computation Group <i>Themes: Zero-shot Text Classification; Text Generation; Structured Prediction</i></li><li>• <b>Max Planck Institute (MPI),</b> Databases &amp; Info. Sys. Group <i>Themes: Entity Disambiguation; Automated KB Construction</i></li><li>• <b>IIT-Bombay:</b> InfoLab <i>Themes: Entity Search &amp; Disambiguation; Distributed Indexing</i></li></ul>	<i>(Aug'15 - Dec'17)</i> <i>(Aug'14 - April'15)</i> <i>(Jan'13 - June'14)</i>
SELECTED PUBLICATIONS	<ol style="list-style-type: none"><li>10. <u>LLM-SR: Scientific Equation Discovery via Programming with Large Language Models.</u> P. Shojaee, K. Meidani, <b>S. Gupta</b>, A. B. Farimani, C. K. Reddy <i>International Conference on Learning Representations (ICLR), 2025</i></li><li>9. <u>SUPER: Evaluating Agents on Setting Up and Executing Tasks from Research Repositories.</u> B. Beglin, K. Yang, <b>S. Gupta</b>, K. Richardson, E. Bransom, P. Clark, A. Sabharwal, T. Khot *Outstanding Paper Award <i>Conference on Empirical Methods in Natural Language Processing (EMNLP), 2024</i></li><li>8. <u>AppWorld: A Controllable World of Apps and People for Benchmarking Interactive Coding Agents</u> H. Trivedi, T. Khot, M. Hartmann, R. Manku, V. Dong, E. Li, <b>S. Gupta</b>, A. Sabharwal, N. Balasubramanian *Best Resource Paper Award <i>Association for Computational Linguistics (ACL), 2024</i></li><li>7. <u>Bias Runs Deep: Implicit Reasoning Biases in Persona-Assigned LLMs.</u> <b>S. Gupta</b>, V. Shrivastava, A. Deshpande, A. Kalyan, P. Clark, A. Sabharwal, T. Khot <i>International Conference on Learning Representations (ICLR), 2024</i></li><li>6. <u>Self-Refine: Iterative Refinement with Self-Feedback.</u> A. Madaan, N. Tandon, P. Gupta, S. Hallinan, L. Gao, S. Wiegreffe, U. Alon, N. Dziri, S. Prabhmoysi, Y. Yang, <b>S. Gupta</b>, B. P. Majumder, K. Hermann, S. Welleck, A. Yazdanbakhsh, P. Clark <i>Conference on Neural Information Processing Systems (NeurIPS), 2023</i></li><li>5. <u>Sparsely Activated Mixture-of-Experts are Robust Multi-Task Learners.</u> <b>S. Gupta</b>, S. Mukherjee, K. Subudhi, E. Gonzalez, D. Jose, A. H. Awadallah, J. Gao <i>ArXiV, 2022</i></li></ol>	

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*
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*
2. CogCompNLP: Your Swiss Army Knife for NLP  
D. Khashabi, M. Sammons, B. Zhou, T. Redman, C. Christodoulopoulos, V. Srikanth, 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*
1. Web-scale Entity Annotation Using MapReduce.  
**S. Gupta**, V. Chandramouli, S. Chakrabarti  
*International Conference on High Performance Computing (HiPC), 2013*

TEACHING  
EXPERIENCE

**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)*

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