

# Vivek Gupta

*Natural Language Processing and Machine Learning*

CONTACT INFORMATION	4039 Chestnut St., Apt. 216 Philadelphia, PA 19104 United States of America	<a href="https://github.com/vgupta123">vgupta123.github.io</a> <a href="mailto:gvivek@seas.upenn.edu">gvivek@seas.upenn.edu</a> <a href="#">Google Scholar</a>
RESEARCH INTERESTS	LLM's Reasoning, Semi-structured Data, Information Synchronization, and Knowledge Integration	
ACADEMIC POSITIONS	<b>Computer and Information Science, University of Pennsylvania</b> Postdoctoral Researcher, Cognitive Computation Group, Computer and Information Science, University of Pennsylvania Topics: (a.) Tabular Data Reasoning, (b.) Information Synchronization, (c.) Structured Multimodal Host: Prof. Dan Roth	July 2023 - Present <a href="#">[Research Statement]</a>
EDUCATION	<b>Kahlert School of Computing, University of Utah</b> PhD, Computer Science, Kahlert School of Computing Inference and Reasoning for Semi-structured Tables Bloomberg Data Science Fellowship 2021-2023 Advisor: Prof. Vivek Srikumar Committee: Prof. Jeff Phillips, Prof. Ellen Riloff, Prof. William Wang, Prof. Mohit Bansal	Aug 2018 - March 2023 <a href="#">[Dissertation]</a> <a href="#">[Doctorate Proposal]</a> <a href="#">[Official Blog]</a>
	<b>Indian Institute of Technology, Kanpur</b> M. Tech, Computer Science and Engineering Product Classification in E-commerce using Distribution Semantic Advisor: Prof. Harish Karnick Committee: Prof. Harish Karnick, Prof. Purushottam Kar, Prof. Arnab Bhattacharya	July 2015 - May 2016 <a href="#">[Dissertation]</a>
	<b>Indian Institute of Technology, Kanpur</b> B. Tech, Computer Science and Engineering	July 2011 - July 2015
AWARDS AND RECOGNITION	Unrestricted Grant worth \$25,000 for tabular research from <a href="#">Adobe Research</a> . <a href="#">DAAD AInet fellow Postdoc-NeT-AI 2023</a> on Generative Machine Learning Models <a href="#">Bloomberg Data Science Fellowship 2021-23</a> Best paper award at <a href="#">DeeLIO</a> workshop at <a href="#">ACL 2022</a> Outstanding paper award at <a href="#">NLP4ConvAI</a> workshop at <a href="#">ACL 2022</a> Selected among the top 7 finalist in <a href="#">Ericson's Innovation Awards, India</a> in 2016 <a href="#">Microsoft Research India Fellowship 2016-18</a> 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, Indian National Physics Olympiads, 2011 Selected among top 1% of students, Indian National Chemistry Olympiads, 2011	
PREPRINT	Gupta, V.*, Pandya, P.*, Kataria, T., <b>Gupta, V.</b> , Roth, D., <i>Multi-Set Inoculation: Assessing Model Robustness Across Multiple Challenge Sets</i> , In review COLM 2024 <a href="#">[Preprint]</a> Akhtar, M.*, Subedi, N.*, <b>Gupta, V.</b> , Tahmasebi, S., Cocarascu, O., Simperl, E., <i>ChartCheck: An Evidence-Based Fact-Checking Dataset over Real-World Chart Images</i> , In review ACL 2024 <a href="#">[Preprint]</a> Shrivastava, P.*, <b>Gupta, V.</b> *, Malik, M., Ganu, T., Roth, D., <i>Evaluating LLMs' Mathematical Reasoning in Financial Document Question Answering</i> , In review ACL 2024 <a href="#">[Preprint]</a>	

Singh, S, Chaurasia, P, V, Yerram, Gupta, V, Pandya P, **Gupta, V.\***, Roth, D., *FlowVQA: Mapping Multimodal Logic in Visual Question Answering with Flowcharts*, In review ACL 2024 [Preprint]  
**Grant proposals** under review: a. *Temporal Tabular Reasoning*, b. *Multi-view Information Synchronization*, c. *Structured Multi-modal Reasoning (in preparation OpenAI Researcher Access Program)*.

**Gupta, V.**, *Inference and Reasoning for Semi-structured Table*, Ph.D. Thesis [Dissertation] [PPT]

**Gupta, V.**, Kandoi, P., Vora M.B., Zhang, S., He, Y., Reinanda, R., Srikumar V., *TempTabQA: Temporal Question Answering for Semi-Structured Tables*, EMNLP 2023 [Paper]

Akhtar, M.\*, Shankarampeta, A.\*, **Gupta, V.**, Patil, A., Cocarascu, O., Simperl, E., *Exploring the Numerical Reasoning Capabilities of Language Models: A Comprehensive Analysis on Tabular Data*, EMNLP 2023 in Findings. [Paper]

Khinchwa, S., Jain, C., **Gupta, V.\***, Kataria, T.\*, Zhang, S., *InfoSync: Information Synchronization across Multilingual Semi-structured Tables*, ACL 2023 [Paper]

**Gupta, V.**, Bhat, R., Ghosal, A., Srivastava, M., Singh, M., Srikumar V., *Is My Model Using The Right Evidence? Systematic Probes for Examining Evidence-Based Tabular Reasoning*, TACL 2022 [Paper]

**Gupta, V.**, Zhang, S., Vempala, A., He, Y., Choji, T., Srikumar V., *Right for the Right Reason: Evidence Extraction for Trustworthy Tabular Reasoning*, ACL 2022 [Paper]

Agarwal, C.\*, **Gupta, V.\***, Kunchukuttan, A., Shrivastava, M., *Bilingual Tabular Inference: A Case Study on Indic Languages*, NAACL 2022 [Paper]

Aggarwal, D.\*, **Gupta, V.\***, Kunchukuttan, A., *IndicXNLI: Evaluating Multilingual Inference for Indian Languages*, EMNLP 2022, Short version MIA-2022 [Paper]

Jena, A.\*, **Gupta, V.\***, Shrivastava, M., Eisenschlos, J., *Leveraging Data Recasting to Enhance Tabular Reasoning*, EMNLP 2022 in Findings, Short version at SUKI-2022 [Paper]

Kumar, D.\*, **Gupta, V.\***, Sharma, S., Zhang, S., *Realistic Data Augmentation Framework for Enhancing Tabular Reasoning*, EMNLP 2022 in Findings, Short version at SUKI-2022 [Paper]

Shankarampeta, A.\*, **Gupta, V.\***, Zhang, S., *Enhancing Tabular Reasoning with Pattern Exploiting Training*, AACL 2022, Short version at SUKI-2022 [Paper]

Jain, N.\*, **Gupta, V.\***, Rai, A., Kumar, G., *TabPert: An Effective Platform for Tabular Perturbation* EMNLP 2021, Demo track [Paper] [Project]

Neeraja, J.\*, **Gupta, V.\*** Srikumar, V. *Incorporating External Knowledge to Enhance Tabular Reasoning*, NAACL 2021 [Paper] [Project]

**Gupta, V.**, Mehta, M., Nokhiz, P., Srikumar, V. *InfoTabS: Inference on Tables as Semi-structured Data*, ACL 2020 [Paper] [Project]

**Gupta, V.**, Saw A., Nokhiz, P., Gupta, H., Talukdar, P., *Improving Document Classification using Multi-Sense Embeddings*, ECAI 2020 , Short version at NAACL-SRW 2019 [Paper] [Blog]

**Gupta, V.**, Kumar, A., Nokhiz, P., Netrapalli, P., Rai, P., Talulkdar, *P-SIF: Document Embeddings using Partition Averaging*, AAAI 2020 [Paper] [Appendix] [PPT] [Poster] [Blog]

Uppal S., **Gupta, V.**, Swaminathan A., Zhang H., Mahata D., Gosangi R., Shah. R., Stent A., *Two-Stage Classification using Recasted Data for Low Resource Settings*, AACL-IJCNLP 2020 [Paper]

Raunak, V., Dalmia, S., **Gupta, V.**, Metze, F., *On Long-Tailed Phenomena in Neural Machine Translation*, EMNLP 2020 (Findings) & presented at SPNLP 2020 [Paper]

Li, T., **Gupta, V.**, Mehta, M., Srikumar, V., *A logic-Driven Framework for Consistency of Neural Models*, EMNLP-IJCNLP 2019 & StarAI 2020 [Paper] [Poster]

**Gupta, V.**, Wadbude, R., Natarajan, N., Karnick, H., Jain, P., Rai, P., *Distributional Semantics meet Multi-Label Learning*, AAAI 2019 [Paper] [Slides] [Poster]

Mekala, D.\*, **Gupta, V.\***, Paranjape, B., Karnick, H. *Sparse Composite Document Vectors using soft clustering over distributional representations*, EMNLP 2017 [Paper] [Slides]

**Gupta, V.**, *Product Classification in E-Commerce using Distributional Semantics*, Master Thesis [\[Dissertation\]](#)

**Gupta, V.**, Karnick, H., Bansal, A., Jhala, P. *Product Classification in E-Commerce using Distributional Semantics*, [COLING 2016](#) (Master Thesis Work) [\[Paper\]](#) [\[Poster\]](#)

\*represent equal contribution

#### WORKSHOPS PUBLICATIONS

Aggarwal, D.\*, **Gupta, V.\***, Kunchukuttan, A., *Evaluating Inter-Bilingual Semantic Parsing for Indian Languages*, [NLP4ConvAI 2023](#) at [ACL 2023](#) [\[Paper\]](#)

**Gupta, V.**, Shrivastava, A., Sagar, A., Aghajanyan, A., Savenkov. D., *RetroNLU: Retrieval Augmented Task Oriented Semantic Parsing*, [Spa-NLP-2022](#) and [NLP4ConvAI-2022](#), (**Outstanding Paper**) [\[Paper\]](#)

Varun, Y.\*, **Gupta, V.\***, Sharma, A., *Trans-KBLSTM: An External Knowledge Enhanced Transformer BiLSTM model for Tabular Reasoning*, [DeeLIO 2022](#) (**Best Paper**) [\[Paper\]](#)

Minhas, B.\*, Shankhdhar, A.\*, **Gupta, V.\***, Aggarwal, D., Zhang, S., *XInfoTabS: Evaluating Multilingual Tabular Natural Language Inference*, [Fever 2022](#) and [MML 2022](#) [\[Paper\]](#)

Gupta, A., **Gupta, V.**, *Unsupervised Contextualized Document Representation*, [SustainNLP 2021](#) [\[Paper\]](#)

**Gupta, V.**, Bharti P., Nokhiz, P., Karnick, H., *SumPubMed: Summarization Dataset of PubMed Scientific Articles*, [ACL-IJCNLP SRW 2021](#) [\[Preprint\]](#) [\[Dataset\]](#)

Yadav, P., Yadav, P., Nokhiz, P., **Gupta, V.**, *Unbiasing Review Ratings with Tendency based Collaborative Filtering*, [AAACL-IJCNLP SRW 2020](#) [\[Paper\]](#)

Raunak, V., **Gupta, V.**, Metze, F., *Effective Dimensionality Reduction for Word Embeddings*, [RepL4NLP 2019](#) [\[Paper\]](#) [\[Poster\]](#)

Raunak, V., Kumar, V., **Gupta, V.**, Metze, F., *On Dimensional Linguistic Properties of the Word Embedding Space*, [ACL-SRW 2019](#) (non-archival) & [RepL4NLP 2020](#) [\[Paper\]](#)

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

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

**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](#) [\[Paper\]](#) [\[Slides\]](#)

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#### TECHNICAL MANUSCRIPTS

**Gupta, V.\***, Nokhiz, P.\*, Dutta, C.\*, Venkatasubramanian, S., *Equalizing Recourse Across Group*, ArXiv 2019 [\[PrePrint\]](#)

Mekala, D., **Gupta, V.**, Kar, P., Karnick, H., *Bayes-optimal Hierarchical Classification over Asymmetric Tree-Distance Loss*, Tech Report [\[PrePrint\]](#)

Mahajan, D., **Gupta, V.**, Keerthi, S., Sundararajan, S., *Efficient Estimation of Generalization Error and Bias-Variance Components of Ensembles*, Tech Report [\[PrePrint\]](#)

#### PROFESSIONAL EXPERIENCE

**Bloomberg AI (IE and KG), London and India** May 2022 - Sep 2022

Temporal Question Answering over Tables *Dr. Shuo Zhang, Dr. Yujie He, Dr. Ridho Reinanda*

**Bloomberg AI (IE and KG), New York** (Part-Time) Aug 2021 - Dec 2021

Information Extraction for Trustworthy Tabular Reasoning *Dr. Shuo Zhang, Dr. Alakananda Vempala, Dr. Yujie He, Dr. Temma Choi*

**Bloomberg AI (IE and KG), New York** May 2021 - Aug 2021

Information Extraction for Trustworthy Tabular Reasoning *Dr. Shuo Zhang, Dr. Alakananda Vempala, Dr. Yujie He, Dr. Temma Choi*

<b>Facebook AI Research (Assistant), Seattle</b>	Sep 2020 - Dec 2020
Efficient and Effective Semantic Parsing	<i>Dr. Denis Savenkov (Research Scientist)</i>
<b>IBM Research, Thomas J. Watson Research Center</b>	May 2019 - Aug 2019
Contrastive Explanations for Natural Language Task	<i>Dr. Kush R Varshney (Research Manager)</i>
<b>Microsoft Research, India</b>	Oct 2016 - Aug 2018
<i>Research Fellow, Machine Learning and Natural Language Application</i>	<i>Dr. Nagarajan Natarajan,</i>
<i>Dr. Praneeth Netrapalli &amp; Dr. Prateek Jain</i>	
<b>Microsoft Research India, Bangalore</b>	May 2016 - Jul 2016
Estimation of Generalization Error for Ensembles	<i>Dr. Sundararajan Sellamanickam (Principal Applied Scientist)</i>
<b>Flipkart Internet Pvt. Ltd., Bangalore (Part Time)</b>	Aug 2015 - July 2016
Web Scale Product Classification	<i>Pradhuman Jhala (Principal Architect)</i>
<b>Flipkart Internet Pvt. Ltd., Bangalore</b>	May 2015 - July 2015
Web Scale Product Classification	<i>Pradhuman Jhala (Principal Architect)</i>
<b>Samsung R&amp;D Institute, Bangalore</b>	May 2014 - July 2014
Mobile and Healthcare Solution Y2014	<i>Sandip Bhaumik (Group Manager) &amp; Raj Roy (Manager)</i>
<b>Synopsys Inc., Bangalore</b>	May 2013 - July 2013
DALI Verification System Coverage Visualization	<i>Yogesh Pandey (Group Director)</i>

#### TEACHING EXPERIENCE

**Guest Instructor:** for CS 2420 - Introduction to Algorithms and Data Structures, Spring 2022. Taught two lecture on Graph Data Structures and Algorithms. Feedback available on request.

**Guest Instructor:** for CS 2420 - Introduction to Algorithms and Data Structures, Fall 2021. Taught two lecture on Graph Data Structures and Algorithms. Design the weekly assignment and the practice lab session. Feedback available on request.

**Teaching Mentee:** for CS 6355 Spring 2021 Structured Prediction. Involves office hours for doubt clearing, assignment and examination evaluation.

**Tutor:** for CS 6150 Fall 2021 Advanced Algorithms. Involved guidance with the weekly assignments and the course material. Feedback available on request.

**Teaching Mentee:** for CS 6150 Fall 2019 Advanced Algorithms. Involves office hours for doubt clearing, assignment and examination evaluation.

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

**Teaching Assistant:** for OS 2016 - Operating System: Mentored a group of 30 M-Tech students part of an introductory course on Operating System.

#### PROFESSIONAL SERVICE

**Organization:** Co-Chaired to organized the NAACL-HLT Student Research Workshop 2021.

**Organization:** Volunteer to organized the Utah Data Science Day 2023 with Prof. Jeff Philips.

**Area Chair:** ACL Rolling Review for \*CL conferences from December 2023.

**Reviewing Duties:** Active reviewer for several NLP conferences and workshops namely : ACL ARR, AI Journal, ACL, EMNLP, NAACL, EMNLP, COLING, ACL-SRW, EACL, NAACL-SRW, CIKM, AAAI.

**Hiring Committee:** Overseeing the summer 2024 interns hiring for Cognitive Computation Group.

**Utah DSC Coordinator:** for CS 7941-Data Science Seminar (Spring 2021, Fall 2021-2020, Summer 2020) along with two University of Utah professors (Prof. Jeff Phillips and Prof. Aditya Bhaskara)

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

**ACM ikDD Student Ninja:** Helping ACM SIGKDD India Chapter (iKDD) to grow among the next-generation Data Science (DS) enthusiasts. Involved leadership roles in organizing iKDD activities as well as creating and running new periodic programs.

**Secretary, Fund Raising, RBWT:** Task with technical know how and fund-raising for Raj Bhanwar Welfare Trust an official registered NGO located in Rajasthan, India. Raised 8,500\$ via crowdsourcing during Covid 2020.

**Student Secretary:** in Promotion of Work Experience and Research PoWER, Office of Dean of Research and Development IIT Kanpur.

**Student Mentor:** in Alumni Contact Program ACA under Office of Dean of Research and Development IIT Kanpur.

## TALKS AND SEMINARS

## INVITED TALKS

*‘Reasoning with Complex Data: Insights from Semi-Structured Tables and Flowcharts’*, Adobe Research, May 2024

*‘Reasoning with Complex Data: Insights from Semi-Structured Tables and Flowcharts’*, Google Research, April 2024

*‘Semi-Structured Tables, Inference and Reasoning’*, PROSE - Microsoft Research, March 2024

*‘Semi-Structured Tables, Inference and Reasoning’*; Clunch Group, UPenn, Oct 2023

*‘Semi-Structured Tables, Inference and Reasoning’*; NLPwithFriends, Oct 2023

*‘Semi-Structured Tables, Inference and Reasoning’*; CogComp Group, UPenn, Oct 2023

*‘Semi-Structured Tables, Inference and Reasoning’*; Samsung Research America, Sep 2023

*‘ChatGPT: AI Taking Over the Future of NLP Research?’*; A podcast session, April 2023

*‘Semi-Structured Tables, Inference and Reasoning’*; UCLA, March 2023

*‘Semi-Structured Tables, Inference and Reasoning’*; Utah Data Science Seminar, March 2023

*‘Semi-Structured Tables, Inference and Reasoning’*; Google NLP Seminar, Feb 2023

*‘Semi-Structured Tables, Inference and Reasoning’*; Bloomberg LP, London and New York. Feb 2023

*‘Semi-automatic Tabular Dataset Construction’*; Bloomberg LP, London and New York. Jan 2023

*‘Bilingual Tabular Inference: A Case Study on Indic Languages’*; Bloomberg LP, London and New York. July 2022

*‘XInfoTabS: Evaluating Multilingual Tabular Natural Language Inference’*; Bloomberg LP, London and New York. July 2022

*‘Right for the Right Reason: Evidence Extraction for Trustworthy Tabular Reasoning’*; Bloomberg LP, London and New York. June 2022

*‘Is My Model Using The Right Evidence? Systematic Probes for Examining Evidence-Based Tabular Reasoning’*; Verisk Inc. Nov 2021

*‘Inference on Tables as Semi-structured Data’*; Bloomberg LP, London and New York. Aug 2021

*‘Inference on Tables as Semi-structured Data’*; Bloomberg LP, London and New York. Aug 2021

*‘Retrieval Augmented Semantic Parsing’*; Bloomberg LP, London and New York and Facebook Research, Seattle. July 2022

*‘Finding your way in that World - Research as a Career’*; Core Talk, Outreach Cell Alumni Association, IIT Kanpur. Oct 2021

*‘Inside the Mind of Master Procastination, valuable lesson from the Ted Talk by Tim Urban’*; UnDistinguished Lecture Series, University of Utah and Bloomberg Ted Talk Series. Jun 2021

*‘Logic Driven Classification using Recasted Data for Low Resource Settings’*; BCS and SIGML Group, IIT Kanpur, Oct 2020

*‘Logic Driven Classification using Recasted Data for Low Resource Settings’*; Utah Data Science

Seminar, Feb 2021

*“InfoTabS: Inference on Tables as Semi-Structured Data”*; IIT (Kanpur, Delhi, Jodhpur, Guwahati(IITG.ai)), IISC Bangalore, IBM Research India, and IIT Delhi

*“Experience of Coordinating SIGML Research Group at IIT Kanpur”*; IITG.ai IIT Guwahati, Utah Data Science Seminar, Feb 2020

*“Unsupervised Document Representation using Partition Word-Vectors Averaging”*; IITG.ai, IIT Guwahati, Feb 2020

*“Unsupervised Document Representation using Partition Word-Vectors Averaging”*; Utah Data Science Seminar, University of Utah, Dec 2019

*“Document Vector Estimation using Partition Word-Vectors Averaging”*; IBM Research, New York, June 2019

*“Unsupervised Document Representation using Partition Word-Vectors Averaging”*; MALL Group, IISC Bangalore, Jan 2020

*“Machine Learning Group, Future of IITG.ai”*; IIT Guwahati (Mentor Talk Series)

*“Distributional semantics meet Multi-label learning”*; Microsoft India Development Center, Hyderabad, 2018

*“Text Categorization using Sparse Composite Document Vectors”*; CLIFT Group, IIT Bombay

*“Research as a Career”*; Think Research Club, VIT, Bombay, 2018

*“Natural Language Processing in E-Commerce, A Case Study”*; Botathon Event Forge Accelerator, Coimbatore, 2018

*“Ocular, Vision for Visually Impaired”*; 2016 Award Talk, Erricson Innovation Award, IIT Delhi

*“Product Classification using Distributional Semantics”*; Microsoft Research India, Bangalore and IBM Research Lab, India, 2016

*“OWASP TOP 10 Web Application Security”*; Karunya University of Technology Science

*“Assisting Humans to Achieve Optimal Sleep by Changing Ambient Temperature ”*; Samsung Research, Bangalore, 2017

## CONFERENCE TALKS

*“RetroNLU: Retrieval Augmented Task Oriented Semantic Parsing”*; NLP4ConvAI at ACL 2022.

*“Right for the Right Reason: Evidence Extraction for Trustworthy Tabular Reasoning”*; ACL 2022.

*“Is My Model Using The Right Evidence? Systematic Probes for Examining Evidence-Based Tabular Reasoning”*; ACL 2022.

*“Trans-KBLSTM: An External Knowledge Enhanced Transformer BiLSTM model for Tabular Reasoning”*; DeeLIO-2022 at ACL 2022

*“Incorporating External Knowledge to Enhance Tabular Reasoning”*; NAACL 2021

*“Unsupervised Contextualized Document Representation”*; SustaiNLP 2021 at EMNLP 2021

*“Unsupervised Document Representation using Partition Word-Vectors Averaging”*; AAAI 2020

*“Distributional semantics meet Multi-label learning”*; AAAI 2019

*“Improving Document Classification with Multi-Sense Embeddings”*; ECAI 2020

*“Word Polysemy Aware Document Vector Estimation”*, NAACL 2019

*“Sparse Composite Document Vectors using soft clustering over distributional representations ”*; EMNLP 2017

*“User Bias Removal in Review Score Prediction”*; CoDS-COMAD 2017 and DAB@CIKM 2017

*“Assisting Humans to Achieve Optimal Sleep by Changing Ambient Temperature ”*; BIBM 2016

Support from the University of Utah for AAAI 2023 travel and stay. (thanks Prof. Srikumar)

Support from Bloomberg for EMNLP 2022 travel and stay.

Annotation funding from Bloomberg for Temporal Table Question Answering project.

Support from Bloomberg for ACL 2022 travel and stay.

Support from Spa-NLP 2022 via student scholarship.

Support from ACL-IJCNLP SRW 2021 for registration fees.

Bloomberg for Data Science Fellowship, 2021-23, A5000, A6000, MacBook-Pro

Supporting Grant for SustainNLP 2021 (Virtual)

Supporting Grant for ECAI 2020 (Virtual) (thanks Prof. Partha)

Student Volunteer for EMNLP 2021 and EMNLP 2020 (Virtual)

Student Volunteer for ACL 2020 (Virtual) and ECAI 2020 (Virtual)

Support to attend Virtual-HLF 2020, MLSS-18 Madrid, MLSS-19 London, MLSS-20 Tübingen

Travel/Accommodation support for talk, Computer Science Department, IIT Kanpur (thanks Prof. Rai)

Microsoft Student Travel Grant for AAAI 2020 in New York

AAAI 2020 Student Volunteer and Student Scholarship for AAAI 2020 in New York

NAACL SRW Travel Grant for NAACL 2019 in Minneapolis, Minnesota

Scholarship to attend Machine Learning Summer School, 2019. Microsoft Student Travel Grant for AAAI 2019 Conference in Honolulu, Hawaii

Student Volunteer Scholarship for AAAI 2019 Conference in Honolulu, Hawaii

Graduate Student Travel Assistance Award (GSTAA) for AAAI 2019

Scholarship to attend Machine Learning Summer School, 2018.

Travel Scholarship for attending ACL 2018 by Microsoft Research India, Bangalore.

Award to attend Dagstuhl Extreme Classification Seminars, 2018.

Student Volunteer Scholarship for EMNLP 2017 Conference in Copenhagen, Denmark

Scholarship for attending EMNLP 2017 by Microsoft Research India, Bangalore.

Scholarship for attending COLING 2016 by Flipkart Internet Pvt. Ltd., India.

Scholarship for attending Workshop on Brain, Computation and Learning, IISC, Bangalore

Scholarship for attending IFCAM NMI Summer School, IISC, Bangalore.

STUDENTS MENTORED It has always been an honor for me to mentor these students in their B-Tech project (BTP) and Master Thesis project (MTP). I appreciate their diligence, modesty, perseverance, and commitment to research.

#### CURRENT MENTEES

Dibyakanti Kumar (IIT Guwahati, 2022-), B-Tech Project *“Template based Temporal Tabular Question Answering”*

Atharv Kulkarni (UUtah, 2022-), B-Tech Project *“Template based Temporal Tabular Question Answering”*

Harsh Kumar (IIT Guwahati, 2022-), B-Tech Project *“Template based Temporal Tabular Question Answering”*

Harsh Mahajan (University of Utah, 2024-), *“Dynamic Temporal Table Extraction”*

Yerram Varun (IIT Guwahati, 2022-), B-Tech Project *“Language Model based Tabular Question Generation”*

Varun Bharadwaj (IIT Guwahati, 2022-), *“Language Model based Tabular Question Generation”*

Pranshu Pandiya (IIT Guwahati, 2022-), *“Multiset Innoculation via Adversarial Fine-tuning”*

Vatsal Gupta (IIT Guwahati, 2023-), *“Multiset Innoculation via Adversarial Fine-tuning”*

Devanshi Garg (IIT Guwahati, 2022-), *“Recasting Tabular NLI to Tabular QA, Tabular Gen, Tabular-Parsing”*

Mansi Sharma (IIT Guwahati, 2022-), *“Recasting Tabular NLI to Tabular QA, Tabular Gen, Tabular-Parsing”*

Pranshu Kandoi (IIT Guwahati, 2022-), *“Temporal Tabular Question Answering”*

Mahek Vora (IIT Guwahati, 2022-), *“Temporal Tabular Question Answering”*

Atreya Ghosh (IIT Guwahati, 2023-), Individual Project *“Recommendation for Tabular Annotations”*

Suyash Vardhan Mathur (IIIT Hyderabad, 2023-), Individual Project *“Reasoning over Multimodal Tables”*

Mahika Vajpeyi (IIT Guwahati, 2023-), Individual Project *“Fact Verification from E-Commerce Product FAQ”*

## PAST MENTEES

Siddharth Khincha (IIT Guwahati, 2022-2023), B-Tech Project *“Information Synchronization across Multilingual Semi-structured Tables”*

Chelsi Jain (CTE Udaipur, 2022-2023), B-Tech Project *“Information Synchronization across Multilingual Semi-structured Tables”*

Divyanshu Aggarwal (DCE, 2022-2023), B-Tech Project *“Inter-Bilingual Task Oriented Semantic Parsing for Indic Languages”*

Pragya Srivastava (IIT Delhi, 2023-2024), Microsoft Intern Project *“Zero-shot Tabular Question Answering”*

Abhilash Shankarampeta (IIT Guwahati, 2021-2023), B-Tech Project *“Systematic Numerical Probing for Semi-Structured Tabular Tasks”*

Akhtar Mubashara (Queens Mary, London 2022-2023), Ph.D. Project *“Systematic Numerical Probing for Semi-Structured Tabular Tasks”*

Rahul Wadbude (IIT Kanpur, 2016-2017), B-Tech Project *“Unbiased Review Rating Prediction”*

Dheeraj Mekala (IIT Kanpur, 2016-2017), B-Tech Project *“Sparse Composite Document Vector Representation”*

Prerna Bharti (IIT Kanpur, 2017-2018), M-Tech Project *“Summarization for Scientific Articles”*

Shibhansh Dohare (IIT Kanpur, 2017-2018), B-Tech Project *“Unsupervised Semantic Abstractive Summarization”*

Antara Bahursettiwar (IIT Kanpur, 2018-2019), Individual Project *“Realistic Data Generation Framework for Tabular Inference”*

Priya Yadav (JSSATE, Noida, 2019-2020), B-Tech Project *“Unbiasing Review Ratings with Tendency based Collaborative Filtering ”*

Harshit Gupta (IIT Delhi, 2019-2020), B-Tech Project *“Improving Document Classification with Multi-Sense Embeddings”*

Ankit Kumar (IIT Kharagpur, 2019-2020), Master Project *“P-SIF: Document Embeddings using Partition Averaging”*

Pranshi Yadav (JSSATE, Noida, 2019-2020), B-Tech Project *“Unbiasing Review Ratings with Tendency based Collaborative Filtering”*

Neeraja Jayakumar (IIT Guwahati, 2019-2020), B-Tech Project *“Incorporating External Knowledge to Enhance Tabular Reasoning”*

Ankur Gupta (IIT Kanpur, 2020-2021), B-Tech Project *“Unsupervised Contextualized Document Representation”*

Shagun Uppal (IIIT Delhi, 2020-2021), B-Tech Project *“Logic Driven Classification for Low Resource Settings”*

Nupur Jain (IIT Kanpur, 2020-2021), B-Tech Project *“TabPert: An Effective Platform for Tabular*



*Perturbation”*

Dibyakanti kumar (IIT Guwahati, 2020-2022), Individual Project “*Efficient Realistic Data Generation Framework for Semi-Structured Tabular Inference*”

Chaitanya Agarwal (IIIT Hyderabad, 2021-2022), Master Project “*Bilingual Tabular Inference: A Case Study on Indic Languages*”

Aashna Jena (IIIT Hyderabad, 2021-2022), Master Project “*Leveraging Data Recasting to Enhance Tabular Reasoning*”

Jamshidbek Mirzakhlov (UCF), Individual Project “*Multilingual Neural Machine Translation with Language Clustering*”

Bhavnick Minhas (IIT Guwahati, 2021-2022), B-Tech Project “*XInfoTabS: Evaluating Multilingual Tabular Natural Language Inference*”

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Aayush Sharma (IIT Guwahati, 2021-2022), B-Tech Project “*External Knowledge Enhanced Transformer BiLSTM model for Tabular Reasoning*”

Yerram Varun (IIT Guwahati, 2021-2022), B-Tech Project “*External Knowledge Enhanced Transformer BiLSTM model for Tabular Reasoning*”

Abhilash Shankarampeta (IIT Guwahati, 2021-2022), B-Tech Project “*Enhancing Tabular Reasoning with Pattern Exploiting Training*”

Soumya Sharma (IIT Kharagpur, 2021-2022), Individual Project “*Efficient Realistic Data Generation Framework for Semi-Structured Tabular Inference*”

Divyanshu Aggarwal (DCE, 2021-2022), B-Tech Project “*IndicXNLI: Evaluating Multilingual Inference for Indian Languages*”