

AKSHAT GUPTA

CS PhD, UC Berkeley

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SUMMARY

I'm a second year PhD Student at UC Berkeley affiliated with BAIR. I'm currently working on knowledge editing and memorization in LLMs.

SKILLS

Languages: Python, Go, MATLAB, C++, Javascript, C

Tools: Pytorch, Huggingface, NLTK, Spacy

Technologies: AWS, GCP, Azure, Dialogflow, Docker

EDUCATION

- 8/2023 - Present **PhD, Computer Science** University of California, Berkeley
Advisor : Gopala Anumanchipalli
- 1/2020 - 5/2021 **MS, Electrical and Computer Engineering** Carnegie Mellon University
Advisor : Alan W Black
- 10/2017 - 3/2020 **MS, Applied and Engineering Physics** Technical University of Munich, Germany
Thesis Advisor : Gregory Eyink (Johns Hopkins University)
- 8/2013 - 6/2017 **B.Tech, Electrical Engineering** Indian Institute of Technology Mandi
Thesis Advisor : Renu Rameshan

EXPERIENCE

- 6/2021 - 8/2023 **Senior Associate, AI Research** JPMorgan Chase
 - Developed relation extraction models for financial knowledge graphs, resulting in a SIGIR 2023 paper and securing a patent.
 - Led the design and deployment of production-grade solutions for public information discovery, enabling insights into companies and financial institutions, resulting in a patent.
 - Supervised a summer intern and mentored student teams from Columbia University and Carnegie Mellon University on sponsored capstone projects, fostering collaborative research and development.
- 8/2020 - 5/2021 **Teaching Assistant, Deep Learning (11785)** Carnegie Mellon University
 - Taught lectures on Transformers and GANs (Youtube links : [Transformers](#), [GANs-1](#), [GANs-2](#))
 - Spearheaded testing and deployment of homework on building E2E speech to text systems

PUBLICATIONS

- Rebuilding ROME : Resolving Model Collapse during Sequential Model Editing**
Akshat Gupta, Sidharth Baskaran, Gopala Anumanchipalli
EMNLP 2024
- A Unified Framework for Model Editing**
Akshat Gupta, Dev Sajnani, Gopala Anumanchipalli
EMNLP 2024 Findings
- Self-Assessment Tests are Unreliable Measures of LLM Personality**
Akshat Gupta, Xiaoyang Song, Gopala Anumanchipalli
BlackboxNLP 2024, co-located with EMNLP 2024
- Model Editing at Scale leads to Gradual and Catastrophic Forgetting**
Akshat Gupta, Anurag Rao, Gopala Anumanchipalli
ACL 2024 Findings
- REFinD: Relation Extraction Financial Dataset**
Simerjeet Kaur, Charese Smiley, **Akshat Gupta**, Joy Sain, Dongsheng Wang, Toyin Aguda, Sameena Shah
SIGIR 2023
- Probing Quantifier Comprehension in Large Language Models: Another Example of Inverse Scaling**
Akshat Gupta
BlackboxNLP 2023, co-located with EMNLP 2023
- Intent classification using pre-trained language agnostic embeddings for low resource languages**
Hemant Yadav, **Akshat Gupta**, Sai Krishna Rallabandi, Alan W Black, Rajiv Ratn Shah
Interspeech 2022
- Acoustics Based Intent Recognition Using Discovered Phonetic Units for Low Resource Languages**
Akshat Gupta, Sai Krishna Rallabandi, Alan W Black
ICASSP 2021

PATENTS

1. **Method and system for automated public information discovery**
Akshat Gupta, Simerjot Kaur, Xiaomo Liu, Armineh Nourbakhsh, Andrea Stefanucci, Alex Woodgate, Sameena Shah
US Patent 12,001,491
2. **Method and system for detection of anomalous rejections of foreign exchange requests**
Nacho Navarro, Xiaomo Liu, Simran Lamba, **Akshat Gupta**, Sameena Shah
US Patent App. 18/085,104
3. **Method and system for domain adaptation of social media text using lexical data transformations**
Akshat Gupta, Xiaomo Liu, Sameena Shah
US Patent App. 18/103,858
4. **Method and system for understanding financial documents**
Simerjot Kaur, Charese Smiley, Joy Sain, Suchetha Siddagangappa, **Akshat Gupta**, Sameena Shah
US Patent App. 17/647,356

ACADEMIC SERVICE

Reviewing

- ICLR 2024
- ACL Rolling Review - June 2024, August 2024
- ACL 2023
- EMNLP 2022

Workshop Organization

- 4th Workshop on Knowledge Discovery from Unstructured Data in Financial Services, SIGIR 2023

ADVISING

- | | |
|--|----------------|
| • Atahan Ozdemir, Undergraduate UC Berkeley | 2024 - Present |
| • Maochuan Lu, Undergraduate UC Berkeley | 2024 - Present |
| • Dev Sajnani, Undergraduate UC Berkeley, Published [2] | 2024 |
| • Anurag Rao, Undergraduate UC Berkeley (-> MS, University of Oxford), Published [4] | 2023 - 2024 |
| • Xiaoyang Song, MS Columbia University (-> PhD, University of Michigan), Published [3] | 2023 |
| • Anant Singh, MS NYU (-> Machine Learning Engineer, Apple) | 2022 - 2023 |