

# Akshit Sinha

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## Education

August 2026	<b>University of Cambridge</b>	Cambridge, United Kingdom
October 2025	M.Phil in Machine Learning & Machine intelligence	
July 2025	<b>International Institute of Information Technology, Hyderabad</b>	Hyderabad, India
July 2021	B.Tech (Hons) in Computer Science and Engineering	

## Experience

Aug 2025	<b>Aikyam Lab, University of Virginia</b> [🔗]	Remote
Jan 2025	Visiting Research Assistant / Advisor: <a href="#">Prof. Chirag Agarwal</a>	
	Worked on multimodal evaluations for language models operating jointly on graphs and text. Our work was accepted at the NPGML workshop at NeurIPS 2025.	
May 2025	<b>Precog Research Group</b> [🔗]	Hyderabad, India
May 2023	Undergraduate Researcher / Advisor: <a href="#">Prof. Ponnurangam Kumaraguru</a>	
	Working on ideas in explainability, robustness and trustworthiness of neural networks, specializing in graph representation learning.	
Aug 2024	<b>Adobe Research</b>	Bangalore, India
May 2024	Research Intern	
	Worked on benchmarking large language models on a new iterative and contextual document updation task.	
Aug 2024	<b>Google DeepMind (formerly Google Research)   InfoNets</b>	Remote
Jan 2024	Student Research Collaborator	
	Introduced a new benchmark to evaluate controversy detection models mimicking the real-world data distribution. Our work was awarded the Best Paper Award at the BeyondFacts workshop.	
Oct 2022	<b>AnkiDroid</b> [🔗]	Remote
May 2022	Google Summer of Code 2022	
	Worked with AnkiDroid team on the Card Browser, made UI/UX improvements to the design, and ported features from the Anki Desktop app to AnkiDroid.	

## Publications

[\* = Equal Contribution]

- [2025] **The Illusion of Diminishing Returns: Measuring Long Horizon Execution in LLMs** [PDF]  
[Akshit Sinha\\*](#), Arvindh Arun\*, Shashwat Goel\*, Steffen Staab and Jonas Geiping  
*Multi-turn Interactions in LLMs Workshop, NeurIPS, 2025* [NeurIPS-W]
- [2025] **A Graph Talks, But Who's Listening? Rethinking Evaluations for Graph-Language Models** [PDF]  
Soham Petkar, Hari Aakash K, Anirudh Vempati, [Akshit Sinha](#), Ponnurangam Kumaraguru and Chirag Agarwal  
*New Perspectives in Advancing Graph Machine Learning Workshop, NeurIPS 2025* [NeurIPS-W]
- [2025] **A Cognac Shot to forget bad memories: Corrective Unlearning for GNNs** [PDF]  
Varshita Kolipaka\*, [Akshit Sinha](#)\*, Debangan Mishra, Sumit Kumar, Arvindh Arun, Shashwat Goel and Ponnurangam Kumaraguru  
*Forty-Second International Conference on Machine Learning* [ICML]
- [2025] **Higher Order Structures for Graph Explanations** [PDF]  
[Akshit Sinha](#)\*, Sreeram Vennam\*, Charu Sharma and Ponnurangam Kumaraguru  
*39th AAAI Conference on Artificial Intelligence* [AAAI]
- [2025] **Topo Goes Political: TDA-Based Controversy Detection in Imbalanced Reddit Political Data** [PDF]  
Arvindh Arun\*, Karuna K Chandra\*, [Akshit Sinha](#), Balakumar Velayutham, Jashn Arora, Manish Jain, and Ponnurangam Kumaraguru  
*5th International Workshop on Computational Methods for Online Discourse Analysis* [BeyondFacts - Best Paper]
- [2024] **Sanity Checks for Evaluating Graph Unlearning** [PDF]  
Varshita Kolipaka\*, [Akshit Sinha](#)\*, Debangan Mishra, Sumit Kumar, Arvindh Arun, Shashwat Goel and Ponnurangam Kumaraguru  
*3rd Conference on Lifelong Learning Agents Workshop Track (CoLLAS)* [CoLLAS-W]

## Select Projects

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<b>Community Detection and Influencer Identification in Indian Social Networks</b>	May'23 - Apr'24
Advisor: Prof. Ponnurangam Kumaraguru   In Collaboration with DRDO [🔗]	

- › Created an end to end system to identify online communities in social media, focusing on the Indian subcontinent.
- › The system included (i) collection of data from various social networks, followed by preprocessing and cleaning of data, (ii) applying state-of-the-art algorithms to perform various analyses based on location, political preferences, common interests, etc, and (iii) combining and packaging both steps into a deliverable web application with a unifying dashboard.

<b>Movie Genre Prediction with Language Models</b>	Aug'23 - Dec'23
[CS7.403] Statistical Methods in AI   Source Code [🔗]	

- › Used various classical ML models as well as language models to predict the genre of movies from their plots on the publicly available IMDB movies dataset.
- › We beat the scores reported in the original report for this task, and implemented complex architectures such as an LSTM, GRU and Transformers.

<b>VASH</b>	Aug'22 - Dec'22
[CS3.301] Operating Systems and Networks   Source Code [🔗]	

- › The Vicious Aegis Shell is a shell coded in C emulating the BASH shell. Includes features like piping, redirection, background processes, and more.

## Teaching and Leadership Roles

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<b>[CS2.201] Computer Systems Organisation</b>	Teaching Assistant	Jan'24-May'24
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- › Introductory course on low level computer architecture.
- › Responsibilities included curating assignments, conducting weekly tutorials, and grading quizzes and assignment submissions.

<b>[CS4.301] Data and Applications</b>	Teaching Assistant	Aug'23-Dec'23
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- › Introductory course on data modelling and data systems.
- › Responsibilities included curating assignments, conducting weekly tutorials, and grading quizzes and assignment submissions.

<b>Open Source Developers' Group (OSDG), IIIT Hyderabad</b>	Club Coordinator	Mar'23 - Feb'24
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- › Conducted an intra-college beginner hackathon with over 150 participants from year 1 and year 2.
- › Conducted various events related to open source software, Linux systems, Google Summer of Code, and a weekly event "Open Source Saturdays".

## Honours and Awards

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**Research List 24-25 (IIIT Hyderabad)** Awarded to students who publish at top conferences in the academic year.

**Dean's List Fall'22 (IIIT Hyderabad)** Awarded to top academic performers in an academic year.

**JEE Mains, 2021** Achieved All India Rank < 1000 with a percentile of 99.94.

## Academic Service

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**Reviewer** ICLR'26 [🔗]

**Reviewer** AAAI'26 [🔗]

**Reviewer** LoG'25 [🔗]

**Conference Volunteer** ICML'25 [🔗]

**Organising Volunteer** ACM CompEd'23 [🔗]