



# Akshit Sinha

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## Education

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

## Experience

May 2025 May 2023	<b>Precog Research Group</b>  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.	Hyderabad, India
Aug 2024 May 2024	<b>Adobe Research</b> Research Intern Worked on benchmarking large language models on a new iterative and contextual document updation task.	Bangalore, India
Aug 2024 Jan 2024	<b>Google DeepMind (formerly Google Research)   InfoNets</b> 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.	Remote
Oct 2022 May 2022	<b>AnkiDroid</b>  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.	Remote

## 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](#)\*, Debangana 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](#)\*, Debangana 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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### Community Detection and Influencer Identification in Indian Social Networks

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.

### Movie Genre Prediction with Language Models

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.

### VASH

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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### [CS2.201] Computer Systems Organisation Teaching Assistant

Jan'24-May'24

- > Introductory course on low level computer architecture.
- > Responsibilities included curating assignments, conducting weekly tutorials, and grading quizzes and assignment submissions.

### [CS4.301] Data and Applications Teaching Assistant

Aug'23-Dec'23

- > Introductory course on data modelling and data systems.
- > Responsibilities included curating assignments, conducting weekly tutorials, and grading quizzes and assignment submissions.

### Open Source Developers' Group (OSDG), IIIT Hyderabad Club Coordinator

Mar'23 - Feb'24

- > 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 [🔗]