Akshit Sinha

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Education

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

Experience

Sep 2025 **May 2025**	**SEAL Group, ELLIS Institute & Max-Planck Institute for Intelligent Systems** [🌐] *Research Collaborator	Advisor: Prof. Jonas Geiping* Worked on evaluating long-horizon capabilities of LLMs. Work under review.	**Remote**
Aug 2025 **Jan 2025**	**Aikyam Lab, University of Virgina** [🌐] *Visiting Research Assistant	Advisor: Prof. Chirag Agarwal* Worked on multimodal evaluations for language models operating jointly on graphs and text. Our work was accepted at the NPGML workshop at NeurIPS 2025.	**Remote**
May 2025 **May 2023**	**Precog Research Group** [🌐] *Undergraduate Researcher	Advisor: Prof. Ponnurangam Kumaraguru* Worked on ideas in explainability, robustness and trustworthiness of neural networks, specializing in graph representation learning. Publications at AAAI'25, ICML'25, and multiple workshops.	**Hyderabad, India**
Aug 2024 **May 2024**	**Adobe Research** *Research Intern* Worked on benchmarking large language models on a new iterative and contextual document updation task.	**Bangalore, India**
Oct 2022 **May 2022**	**AnkiDroid** [🌐] *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]

[2026] **The Illusion of Diminishing Returns: Measuring Long Horizon Execution in LLMs** [PDF]
Akshit Sinha*, Arvindh Arun*, Shashwat Goel*, Steffen Staab and Jonas Geiping
14th International Conference on Learning Representations   [**ICLR**]

[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 Kumarauguru 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

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 sweb 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

[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

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

Reviewer	ICLR'26 [🌐]
Reviewer	AAAI'26 [🌐]
Reviewer	LoG'25 [🌐]
Conference Volunteer	ICML'25 [🌐]
Organising Volunteer	ACM CompEd'23 [🌐]