



# Akshit Sinha

 <https://viciousaegis.github.io/>    [as3727@cam.ac.uk](mailto:as3727@cam.ac.uk)    [github.com/viciousaegis](https://github.com/viciousaegis)    Google Scholar

## 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>  <i>Undergraduate Researcher</i>   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> <i>Research Intern</i> 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> <i>Student Research Collaborator</i> Introduced a new benchmark to evaluate controversy detection models mimicking the real-world data distribution.	Remote
Oct 2022 May 2022	<b>AnkiDroid</b>  <i>Google Summer of Code 2022</i> 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]	<b>The Illusion of Diminishing Returns: Measuring Long Horizon Execution in LLMs</b> [PDF] <a href="#">Akshit Sinha</a> *, Arvindh Arun*, Shashwat Goel*, Steffen Staab and Jonas Geiping <i>Preprint</i>	[Arxiv]
[2025]	<b>A Graph Talks, But Who's Listening? Rethinking Evaluations for Graph-Language Models</b> [PDF] Soham Petkar, Hari Aakash K, Anirudh Vempati, <a href="#">Akshit Sinha</a> , Ponnurangam Kumaraguru and Chirag Agarwal <i>Preprint</i>	[Arxiv]
[2025]	<b>A Cognac Shot to forget bad memories: Corrective Unlearning for GNNs</b> [PDF] Varshita Kolipaka*, <a href="#">Akshit Sinha</a> *, Debangana Mishra, Sumit Kumar, Arvindh Arun, Shashwat Goel and Ponnurangam Kumaraguru <i>Forty-Second International Conference on Machine Learning</i>	[ICML]
[2025]	<b>Higher Order Structures for Graph Explanations</b> [PDF] <a href="#">Akshit Sinha</a> *, Sreeram Vennam*, Charu Sharma and Ponnurangam Kumaraguru <i>39th AAAI Conference on Artificial Intelligence</i>	[AAAI]
[2025]	<b>Topo Goes Political: TDA-Based Controversy Detection in Imbalanced Reddit Political Data</b> [PDF] Arvindh Arun*, Karuna K Chandra*, <a href="#">Akshit Sinha</a> , Balakumar Velayutham, Jashn Arora, Manish Jain, and Ponnurangam Kumaraguru <i>5th International Workshop on Computational Methods for Online Discourse Analysis</i>	[BeyondFacts - Best Paper]
[2024]	<b>Sanity Checks for Evaluating Graph Unlearning</b> [PDF] Varshita Kolipaka*, <a href="#">Akshit Sinha</a> *, Debangana Mishra, Sumit Kumar, Arvindh Arun, Shashwat Goel and Ponnurangam Kumaraguru <i>3rd Conference on Lifelong Learning Agents Workshop Track (CoLLAS)</i>	[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 swab 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

---

**Dean's List Fall'22** 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 [🔗]