

Hridoy Sankar Dutta

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PROFESSIONAL HIGHLIGHTS	<ul style="list-style-type: none">Over 10 years of research experience in cybersecurity, cybercrime and online social networks, with a focus on emerging safety risks in large-scale online ecosystems.Researcher with expertise in cybersecurity and cybercrime measurement, with academic experience at Deakin University and the University of Cambridge.Published impactful research in leading top-tier conferences and journals such as TIFS, ASIACCS, WiSec, eCrime, TIST, ICWSM, CIKM and WSDM.Developer of open-source tools and large-scale datasets including YT-30M and ABOME, widely used in academia and industry for cybercrime analysis, social media intelligence, and automated data collection.
EXPERIENCE & Lecturer in Cybersecurity, Deakin University	July 2024 - Present
EDUCATION	<p>Research Associate, University of Cambridge <i>Cambridge Cybercrime Centre</i> <i>University of Cambridge</i></p> <p>Research Assistant, University of Cambridge <i>Cambridge Cybercrime Centre</i> <i>University of Cambridge</i></p> <p>PhD in Computer Science and Engineering Indraprastha Institute of Information Technology Delhi (IIIT-D) • Thesis Title: <i>Detecting and reasoning collusive activities in online media platforms.</i></p>
PATENT	<ul style="list-style-type: none">Sujoy Saha, Prithviraj Pramanik, Partha Sarathi Paul, Subrata Nandi, Kingshuk De, Bishak Chandra Ghosh, Hridoy Sankar Dutta, Tamal Mondal, Krishnendu Hazra, Indrajit Bhattacharya, Sandip Chakraborty, An end-to-end system for offline localized crisis mapping and method of operation thereof, Indian Patent, Application No: 201931050685, Filed on 09 December, 2019.
SELECTED RESEARCH PAPERS & PROFESSIONAL SERVICES	<p>Google Scholar: https://scholar.google.co.in/citations?user=4UrQjwUAAAJ.</p> <ul style="list-style-type: none">Luis Adán Saavedra del Toro, Hridoy Sankar Dutta, Alastair Beresford and Alice Hutchings. iOSZoo: A Large-Scale Study of Third-Party iOS App Markets. <i>19th ACM Conference on Security and Privacy in Wireless and Mobile Networks (ACM WiSec)</i>, June 30– July 3, 2026, Saarbrücken, Germany.Hridoy Sankar Dutta and Biswadeep Khan. YTCommentVerse: A Multi-Category Multi-Lingual YouTube Comment Corpus. <i>34th ACM Conference on Information and Knowledge Management (CIKM 2025)</i>, Nov 10 – 14, 2025.Luis Adán Saavedra del Toro, Hridoy Sankar Dutta, Alastair Beresford and Alice Hutchings. App-solutely Modded: The rift between modded app market operators and original developers. <i>ACM ASIA Conference on Computer and Communications Security (ACM ASIACCS 2025)</i>, August 25 – 29, 2025, Ha Noi, Vietnam.Luis Adán Saavedra del Toro, Hridoy Sankar Dutta, Alastair Beresford and Alice Hutchings. ModZoo: A Large-Scale Study of Modded Android Apps and their Markets, <i>APWG Symposium on Electronic Crime Research (eCrime 2024)</i>, September 24 – 26, 2024, Boston, Massachusetts, USA.Hridoy Sankar Dutta, Vishal Raj Dutta, Aditya Adhikary, Tanmoy Chakraborty. HawkesEye: Detecting Fake Retweeters using Hawkes Process and Topic Modeling, <i>IEEE Trans. Information Forensics and Security (TIFS)</i>. (Impact Factor: 6.3)Hridoy Sankar Dutta, Nirav Diwan, Tanmoy Chakraborty. Weakening the Inner Strength: Spotting Core Collusive Users in YouTube Blackmarket Network, <i>16th International AAAI Conference on Web and Social Media (ICWSM)</i>. vol. 16, pp. 147-158. 2022.

- **Hridoy Sankar Dutta**, Mayank Jobanputra, Himani Negi, Tanmoy Chakraborty. Detecting and Analyzing Collusive Entities on YouTube, *ACM Transactions on Intelligent Systems and Technology (TIST)* 12, no. 5 (2021): 1-28.(Impact Factor: 7.2)
- **Hridoy Sankar Dutta** and Tanmoy Chakraborty. Blackmarket-driven Collusion among Retweeters – Analysis, Detection and Characterization. *IEEE Transactions on Information Forensics and Security (TIFS)*. (Impact Factor: 6.3)

DATASETS

- **Hridoy Sankar Dutta**. **YT-30M**: A multi-lingual multi-category dataset of YouTube comments. *HuggingFace downloads: 480, Industry adoption: ActiveFence, USA*
- **Hridoy Sankar Dutta**, Udit Arora and Tanmoy Chakraborty . **ABOME**: A Multi-platform Data Repository of Artificially Boosted Online Media Entities. *Zenodo downloads: 303*

OPEN-SOURCE CONTRIBUTIONS

- **The YouTube Scraper** — Tool to download YouTube video descriptions and comments without using the YouTube API. (*160+ stars, 25+ forks*)
- **Python BiReWire** — Bipartite graph randomization in Python using BiReWire
- **Awesome Twitter Tools** — A curated list of Twitter tools and resources. (*200+ stars, 25+ forks*)

INTERESTS AND SKILLS

- **Interests:** Data-driven cybersecurity, Cybercrime, Social network safety, LLM Safety.
- **Operating systems:** GNU/Linux; **Tools:** Python, SQL, Deep Learning (Graphs), GitHub.

FUNDING

School of IT Minor Equipment Expenses Scheme 2025 3500 AUD
Deakin University

Deakin Cyber Collaboration Grants Scheme 2025 (Co-PI) 5000 AUD
Deakin Cyber Research and Innovation Centre 2025 - Present

OpenAI Researcher Access Program (PI) 1000 USD
OpenAI 2025 - Present

Deakin University Startup Grant (PI) INR 10000 AUD
Deakin University 2024 - Present

OTHER EXPERIENCES

Co-founder, Assam AI Initiative (AAII)
A non-profit initiative to promote various scopes of AI Feb 2021 - Present

Visiting Researcher, TU Munich, Germany
Supervisor: Prof. Juergen Pfeffer
Professor of Computational Social Science & Big Data, TU Munich July 2023

Visiting Researcher, Cardiff University, UK
Supervisor: Prof. Pete Burnap
Professor, School of Computer Science and Informatics, Cardiff University March 2019, March 2020

Short-Term Scholar, George Mason University, USA June 2019 - August 2019
Supervisor: Dr. Hemant Purohit, Associate Professor, Information Sciences & Technology Department
George Mason University (GMU)

- ACHIEVEMENTS AND AWARDS**
- Wiseman Prize 2023, Department of Computer Science and Technology, University of Cambridge.
 - DAAD AInet fellowship 2023.
 - Rising Star in Data Science by the Center for Data and Computing (CDAC), University of Chicago.
 - Awarded ICWSM 2021 scholarship for Underrepresented Groups Program.
 - Awarded 3rd prize at Ninth IDRBT Doctoral Colloquim IDC 2019.