

Hridoy Sankar Dutta

hridoy.sankardutta@gmail.com, +918135002680

PROFESSIONAL HIGHLIGHTS

- Experienced in building end-to-end AI and deep-learning solutions: from data engineering to model deployment using modern frameworks and production-ready infrastructure.
- 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 IEEE TIFS, ACM TIST, AAAI ICWSM and CIKM with 300+ citations.
- 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 & EDUCATION

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|--|------------------------------|
| Lecturer in Cybersecurity, Deakin University | July 2024 - Present |
| Research Associate, University of Cambridge
<i>Cambridge Cybercrime Centre</i>
<i>University of Cambridge</i> | June 2021 - June 2024 |
| Research Assistant, University of Cambridge
<i>Cambridge Cybercrime Centre</i>
<i>University of Cambridge</i> | February 2021 - June 2021 |
| PhD in Computer Science and Engineering
Indraprastha Institute of Information Technology Delhi (IIIT-D) | August 2017 - September 2021 |
| • Thesis Title: <i>Detecting and reasoning collusive activities in online media platforms.</i> | |

PATENT

- Sujoy Saha, Prithviraj Pramanik, Partha Sarathi Paul, Subrata Nandi, Kingshuk De, Bishak Chandra Ghosh, **Hridoy Sankar Dutta**, Tamal Mondal, Krishnendu Hazra, Indrajit Bhat-tacharya, 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

- Google Scholar: <https://scholar.google.co.in/citations?user=4UrQjwUAAAAJ>.
- **Hridoy Sankar Dutta** and Biswadeep Khan. YTCommentVerse: A Multi-Category Multi-Lingual YouTube Comment Corpus. *34th ACM Conference on Information and Knowledge Management (CIKM 2025)*, 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. *ACM ASIA Conference on Computer and Communications Security (ACM ASIACCS 2025)*, 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, *APWG Symposium on Electronic Crime Research (eCrime 2024)*, 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, *IEEE Trans. Information Forensics and Security (TIFS)*. (Impact Factor: 6.3)
 - **Hridoy Sankar Dutta**, Nirav Diwan, Tanmoy Chakraborty. Weakening the Inner Strength: Spotting Core Collusive Users in YouTube Blackmarket Network, *16th International AAAI Conference on Web and Social Media (ICWSM)*. 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)

	<ul style="list-style-type: none"> • Hridoy Sankar Dutta and Tanmoy Chakraborty. Blackmarket-driven Collusion among Retweeters – Analysis, Detection and Characterization. <i>IEEE Transactions on Information Forensics and Security (TIFS)</i>. (Impact Factor: 6.3) 								
DATASETS	<ul style="list-style-type: none"> • Hridoy Sankar Dutta. YT-30M: A multi-lingual multi-category dataset of YouTube comments. <i>HuggingFace</i> downloads: 480, <i>Industry adoption: ActiveFence, USA</i> • Hridoy Sankar Dutta, Udit Arora and Tanmoy Chakraborty . ABOME: A Multi-platform Data Repository of Artificially Boosted Online Media Entities. <i>Zenodo</i> downloads: 303 								
OPEN-SOURCE CONTRIBUTIONS	<p>See GitHub profile at https://tinyurl.com/hsd-github.</p> <ul style="list-style-type: none"> • The YouTube Scraper — Tool to download YouTube video descriptions and comments without using the YouTube API. (<i>160+ stars, 25+ forks</i>) • Python BiReWire — Bipartite graph randomization in Python using BiReWire • Awesome Twitter Tools — A curated list of Twitter tools and resources. (<i>200+ stars, 25+ forks</i>) 								
INTERESTS AND SKILLS	<ul style="list-style-type: none"> • Interests: Data-driven cybersecurity, Cybercrime, Social network safety, LLM Safety. • Operating systems: GNU/Linux; Tools: Python, SQL, Deep Learning (Graphs), GitHub. 								
FUNDING	<table> <tr> <td>School of IT Minor Equipment Expenses Scheme 2025 <i>Deakin University</i></td> <td>3500 AUD</td> </tr> <tr> <td>Deakin Cyber Collaboration Grants Scheme 2025 (Co-PI) <i>Deakin Cyber Research and Innovation Centre</i></td> <td>5000 AUD 2025 - Present</td> </tr> <tr> <td>OpenAI Researcher Access Program (PI) <i>OpenAI</i></td> <td>1000 USD 2025 - Present</td> </tr> <tr> <td>Deakin University Startup Grant (PI) <i>Deakin University</i></td> <td>INR 10000 AUD 2024 - Present</td> </tr> </table>	School of IT Minor Equipment Expenses Scheme 2025 <i>Deakin University</i>	3500 AUD	Deakin Cyber Collaboration Grants Scheme 2025 (Co-PI) <i>Deakin Cyber Research and Innovation Centre</i>	5000 AUD 2025 - Present	OpenAI Researcher Access Program (PI) <i>OpenAI</i>	1000 USD 2025 - Present	Deakin University Startup Grant (PI) <i>Deakin University</i>	INR 10000 AUD 2024 - Present
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OTHER EXPERIENCES	<p>Co-founder, Assam AI Initiative (AII) <i>A non-profit initiative to promote various scopes of AI</i> Feb 2021 - Present</p> <p>Visiting Researcher, TU Munich, Germany <i>Supervisor: Prof. Juergen Pfeffer</i> <i>Professor of Computational Social Science & Big Data, TU Munich</i> July 2023</p> <p>Visiting Researcher, Cardiff University, UK <i>Supervisor: Prof. Pete Burnap</i> <i>Professor, School of Computer Science and Informatics, Cardiff University</i> March 2019, March 2020</p> <p>Short-Term Scholar, George Mason University, USA June 2019 - August 2019 <i>Supervisor: Dr. Hemant Purohit, Associate Professor, Information Sciences & Technology Department</i> <i>George Mason University (GMU)</i></p>								
ACHIEVEMENTS AND AWARDS	<ul style="list-style-type: none"> • 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 IDRB Doctoral Colloquium IDC 2019. 								