# Hridoy Sankar Dutta

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LINKS

**Website:** https://hridaydutta123.github.io
**Github:** https://github.com/hridaydutta123/
**DBLP:** http://dblp.uni-trier.de/pers/hd/d/Dutta:Hridoy_Sankar
**Google Scholar:** https://scholar.google.co.in/citations?user=4UrQjwUAAAAJ&hl=en
**LinkedIn:** https://www.linkedin.com/in/hridoy-sankar-dutta-18448a63/?ppe=1

EDUCATION

**PhD in Computer Science and Engineering**                     Aug 2017 - Present
Indraprastha Institute of Information Technology Delhi (IIIT-D), India
- Thesis Title: *Detecting and reasoning collusive activities in online media*
- Supervisor: **Dr. Tanmoy Chakraborty**, Assistant Professor & Ramanujan Fellow, Dept. of CSE, Indraprastha Institute of Information Technology Delhi (IIIT-D), India

**M.Tech in Computer Science and Engineering**                     2015 - 2017
National Institute of Technology Durgapur, West Bengal, India
- Thesis Title: *An offline crisis mapping system for large-scale natural disasters*
- Supervisor: **Prof. Subrata Nandi**, Professor, Dept. of CSE, NIT Durgapur and **Dr. Sujoy Saha**, Assistant Professor, Dept. of CSE, NIT Durgapur
- CGPA of **9.15**/10 (Ranked 3rd)

**B.Tech in Computer Science and Engineering**                     2009 - 2013
Institute of Science and Technology, Gauhati University, Assam, India
- Thesis Title: *Hierarchical Convergecasting with clustering and spanning tree generation*
- Supervisor: **Dr. Sushanta Karmakar**, Associate Professor, Dept. of CSE, Indian Institute of Technology Guwahati (IIT-G)
- Mentor: **Dr. Sandip Chakraborty**, Assistant Professor, Dept. of CSE, Indian Institute of Technology Kharagpur (IIT-KGP)
- CGPA of **9.17**/10

PAPERS UNDER REVIEW

- **Hridoy Sankar Dutta**, Udit Arora, Tanmoy Chakraborty. BlackDB – A database of blackmarket-driven collusive entities in online media.
- **Hridoy Sankar Dutta**, Siva Charan Reddy Gangireddy, Tanmoy Chakraborty. Collusion on the web: A Survey.
- Deepak Thukral, **Hridoy Sankar Dutta**, Vikram Goyal, Tanmoy Chakraborty. Catch Me if You Can: Spotting Collusive Users Involved in Blackmarket Following Services.
- **Hridoy Sankar Dutta**, Nirav Diwan, Tanmoy Chakraborty. Weakening the Inner Strength: Spotting Core Collusive Users in YouTube Blackmarket Network.
- **Hridoy Sankar Dutta**, Mayank Jobanputra, Himani Negi, Tanmoy Chakraborty. Detecting and Analyzing Collusive Entities on YouTube.

ACCEPTED / PUBLISHED PAPERS

(Type-A/A* conferences based on CORE ranking and high impact journals are highlighted in blue.)
* - Equal contribution

- Udit Arora*, **Hridoy Sankar Dutta***, Brihi Joshi, Aditya Chetan, Tanmoy Chakraborty. Analyzing and Detecting Collusive Users Involved in Blackmarket Retweeting Activities, *ACM Transactions on Intelligent Systems and Technology (TIST)*. (Impact Factor: 3.971)
- **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: 6.211)

- **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: 6.211)

- Partha Sarathi Paul, Bishakh Chandra Ghosh, **Hridoy Sankar Dutta**, Kingshuk De, Arka Prava Basu, Prithviraj Pramanik, Sujoy Saha, Sandip Chakraborty, Niloy Ganguly, Subrata Nandi. CRIMP: Here Crisis Mapping Goes Offline. *Elsevier Journal of Network and Computer Applications (JNCA)*. (Impact Factor: 5.273)

- Aditya Chetan*, Brihi Joshi*, **Hridoy Sankar Dutta**\*, Tanmoy Chakraborty. CoReRank: Ranking to Detect Users Involved in Blackmarket-based Collusive Retweeting Activities. *12th ACM International Conference on Web Search and Data Mining (WSDM)*, Melbourne, Australia, Feb 11-15, 2019. (Acceptance rate: 16%)

- **Hridoy Sankar Dutta**, Aditya Chetan, Brihi Joshi, Tanmoy Chakraborty. Retweet Us, We Will Retweet You: Spotting Collusive Retweeters Involved in Blackmarket Services, *IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining* (ASONAM), Barcelona, Spain, Aug 28-31, 2018. (Acceptance rate: 15%)

- Partha Sarathi Paul, **Hridoy Sankar Dutta**, Bishakh Chandra Ghosh, Krishnandu Hazra, Sandip Chakraborty, Sujoy Saha, Subrata Nandi. Offline crisis mapping by opportunistic dissemination of crisis data after large-scale disasters, *2nd ACM SIGSPATIAL International Workshop on the Use of GIS in Emergency Management*, California, United States, Oct 31-Nov 3, 2016.

- Sandip Chakraborty, Suchetana Chakraborty, Sushanta Karmakar, **Hridoy Sankar Dutta**. Hierarchical topology adaptation for distributed convergecast applications, In *29th Annual ACM Symposium on Applied Computing*, Gyeongju, Korea, March 24-28, 2014.

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| Job Experience | **Assistant Project Engineer, IIT Guwahati** | Aug, 2014 - Apr, 2015 |

**Assistant Project Engineer, IIT Guwahati**     Aug, 2014 - Apr, 2015

Project Title: *Developing Text to Speech System in Assamese Language Phase II*

Supervisor: Dr. S.R.M.Prasanna, Professor, Dept. of EEE, Indian Institute of Technology, Guwahati (IIT-G)

OTHER EXPERIENCES

**Short-Term Scholar, George Mason University**
*Mentored by Dr. Hemant Purohit*
*Assistant Professor, Information Sciences & Technology Department*
*George Mason University*     June, 2019 - August, 2019

**Visiting Researcher, Cardiff University**
*Mentored by Prof. Pete Burnap*
*Professor, School of Computer Science and Informatics, Cardiff University*     March 2019, March 2020

**Student Researcher, ForkIT**
*Mentored by Prof. Subrata Nandi, Dept. of CSE, NIT Durgapur &*
*Dr. Sujoy Saha, Dept. of CSE, NIT Durgapur*     May, 2016 - June, 2017
An End-to-end system to generate Offline Crisis maps

**Summer Research Intern in DISARM Group, NIT Durgapur**
*Mentored by Prof. Subrata Nandi, Dept. of CSE, NIT Durgapur*     May, 2016 - July, 2016
Developed web application Admin Dashboard for Master Control Station at the time of disaster. Django, a python web framework was used to develop the application.

**Winter Research Intern in DISARM Group, NIT Durgapur**
*Mentored by Prof. Subrata Nandi, Dept. of CSE, NIT Durgapur*     Dec, 2015 - Jan, 2016
Developed an Oppurtunistic Network for Android Application.

**Project Intern, IIT Guwahati**
*Mentored by Dr. Sushanta Karmakar, Dept. of CSE, IIT Guwahati*     Jan, 2013 - June, 2013
Worked on the Research Topic "Hierarchical topology adaptation for distributed convergecast applications"

**SELECTED PROJECTS**

All projects are available on git : https://www.github.com/hridaydutta123

- **ResourceFinder** - A resource map tool created during Covid-19 to locate nearby grocery shops, hospitals and gas stations with their opening time, closing time, phone number etc.
- **Assamese2Vec** - An open source project for modeling the Assamese language.
- **Awesome Twitter Tools** - A curated list of tools, datasets, research papers and browser extensions related to Twitter.
- **The YouTube Scraper** - Download YouTube video description and video comments without using the YouTube API.
- **Collusive User Detection Tool** - A tool for detection of collusive users in online social networks.
- **Opportunistic Network for Android Application** - Implementation of communication medium for challenge network scenario.
- **Offline Master Control Station** - Implementation of reliable and effective data transfer from oppurtunistic network and tool for analyzing behaviour of data captured in oppurtunistic networks.
- **Designing TTS System in Assamese and Manipuri Languages** - It involves building systems for synthesizing natural speech in native Assamese and Manipuri tone from a given text and building user friendly GUIs for the common people.
- **MapDisarm** - Offline efficient transfer of OSM Map tiles among various devices without internet connectivity for gps based recovery in Oppurtunistic network.

**ACHIEVEMENTS AND AWARDS**

- Awarded 3rd prize for presenting my work at Ninth IDRBT Doctoral Colloquim IDC 2019.
- Awarded Student Travel Grant to attend CODS COMAD 2019.
- Grand Challenge Grade **A** winner where smart & embedded device innovators around the world vied for the top spot. Organised by International Symposium Embedded Devices, 2016 at IIT Patna.
- Came **1st Runners Up** in Startup Weekend, Kolkata (5-7th August, 2016).
- Media Coverage of our Group in a local daily: http://aamarkatha.com/?p=1121#.WMzJSszEghE.whatsapp
- Won **3rd Prize in Coding Competition** at Techniche 2012 ( IIT Guwahati Technical Fest Coding Event ).
- Attended NASSCOM Product Conclave-2016 as Student Researcher of ForkIT
- Rank of **3** in Master Of Technology and Rank of **7** in Bachelor Of Technology.
- Secured 10/10 SGPA in M.Tech (3rd & 4th Semester)
- Secured 10/10 SGPA in B.Tech (6th, 7th & 8th Semester)
- GATE Qualified (2016) **Gate Score : 488 (Rank: 4370)**
- GATE Qualified (2015) **Gate Score : 441 (Rank: 6675)**
- Recipient of GATE Scholarship (2014) **Gate Score : 582 (Rank: 2139)**
- Passed 'A' level examination of National Cadet Crops (NCC).

**PROFESSIONAL SERVICES**

- ACM International Conference on Information and Knowledge Management (CIKM 2020) (Reviewer).
- PAKDD Workshop on Data Science for Fake News (DSFN 2020) (Web Chair and Reviewer).
- Wiley Journal on Expert Systems (Reviewer).
- IEEE/WIC/ACM International Conference on Web Intelligence Web Intelligence (WI 2019) (External Reviewer).
- International Conference on Secure Knowledge Management in Artificial Intelligence Era (SKM 2019) (External Reviewer).

| EVENTS & WORKSHOPS ATTENDED | |
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- Amazon Research Days, Bangalore (2019)
- Academic Research Summit 2019 on Data Science and AI, IIT Madras, Chennai (2019)
- ACM India Joint International Conference on Data Science and Management of Data (CoDS-COMAD 2019)
- Winter School on Artificial Intelligence, IIIT Delhi (2019)
- Amazon Research Days, Bangalore (2018)
- Young Scientist Conference at India International Science Festival (2018)
- Workshop on Complex and Social Networks, IIT Kharagpur (2017)
- NASSCOM Product Conclave, Bangalore (2016)

TECHNICAL SKILLS

**Strongest Areas** - Social Network Analysis, Data Mining, Applied Machine Learning, Web Mining, Natural Language Processing & System Programming, Web Technology.
**Languages** - Python, Java, PHP, Dart, C++, UNIX Shell, HTML, CSS, JS, Ajax, Perl
**Frameworks** - Twitter API Clients, NLTK, Sklearn, Gensim, Django, Flask, Flutter
**Tools** - Git, Android Studio, Adobe Photoshop, JUnit, LaTeX
**Databases** - Firebase, MySQL, SQLite, MongoDB

PERSONAL DETAILS

**Date of Birth:** 12th September, 1991
**Gender:** Male
**Nationality:** Indian

REFERENCES

**Dr. Tanmoy Chakraborty** <tanmoy@iiitd.ac.in>, Asst. Professor, Dept. of CSE, IIIT Delhi

**Dr. Sandip Chakraborty** <sandipc@cse.iitkgp.ac.in>, Asst. Professor, Dept. of CSE, IIT Kharagpur

**Prof. Subrata Nandi** <subrata.nandi@cse.nitdgp.ac.in>, Professor, Dept. of CSE, NIT Durgapur

**Dr. Bibhash Sen** <bibhash.sen@cse.nitdgp.ac.in>, Assoc. Professor, Dept. of CSE, NIT Durgapur