



# 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](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) (May 2017)
- 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 (May 2013)
- High School** - Shrimanta Shankar Academy, Guwahati - **82.80%** 2007 - 2009  
**Secondary School** - Hindustani Kendriya Vidyalaya - **81.00%** 2000 - 2007

## PAPERS UNDER REVIEW

- Vishal Raj Dutta, Aditya Adhikary, **Hridoy Sankar Dutta**, Tanmoy Chakraborty. HawkesEye: Detecting Fake Retweeters using Hawkes Process and Topic Modeling, *IEEE Trans. Information Forensics and Security*.
- **Hridoy Sankar Dutta**, Udit Arora, Tanmoy Chakraborty. CoBeDB A database of blackmarket-driven collusive entities in online media.
- **Hridoy Sankar Dutta**, Tanmoy Chakraborty. Blackmarket-driven Collusion among Retweeters Analysis, Detection and Characterization, *IEEE Trans. Information Forensics and Security*. (**Under Revision**)
- **Hridoy Sankar Dutta**, Siva Charan Reddy Gangireddy, Tanmoy Chakraborty. Collusion on the web: A Survey.
- Udit Arora, **Hridoy Sankar Dutta**, Brihi Joshi, Aditya Chetan, Tanmoy Chakraborty. Analyzing and Detecting Collusive Users Involved in Blackmarket Retweeting Activities.
- Deepak Thukral, **Hridoy Sankar Dutta**, Vikram Goyal, Tanmoy Chakraborty. Catch Me if You Can: Spotting Collusive Users Involved in Blackmarket Following Services.
- Seongjae Choi, Kyeongpil Kang, Sungbok Shin, **Hridoy Sankar Dutta**, Tanmoy Chakraborty, Jaegul Choo and Noseong Park. Detecting Cyberattack Signals from Social Media via Label Propagation Filtering.

- Joyita Chakraborty, Dinesh Pradhan, **Hridoy Sankar Dutta**, Subrata Nandi, and Tanmoy Chakraborty. On Good and Bad Intentions behind Anomalous Citation Patterns among Journals in Computer Sciences. arXiv preprint arXiv:1807.10804, 2018.

ACCEPTED /  
PUBLISHED  
PAPERS

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

\* - Equal contribution

- 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.

JOB  
EXPERIENCE

**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 - Present

**Visiting Researcher, Cardiff University**

*Mentored by Prof. Pete Burnap*

*Professor of Data Science, School of Computer Science and Informatics, Cardiff University*

Mar, 2019

**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 Opportunistic 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"

## CERTIFIED COURSES

- **JAVA** Programming Course at InfoConnect Solutions

Aug, 2011 - Feb, 2012

## SELECTED PROJECTS

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

- **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 opportunistic network and tool for analyzing behaviour of data captured in Opportunistic 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 Opportunistic network.

## ACHIEVEMENTS AND AWARDS

- 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 Corps (NCC).
- Winner of Counter Strike Gaming Competition at Technoshine 2015, Technoshine 2016, Aarohan 2017 and Rectasy 2017 held at NIT Durgapur.

## EVENTS & WORKSHOPS ATTENDED

- 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, Natural Language Processing, Data Mining, Machine Learning, Data Structures & Algorithms, Web Technology, System Programming  
**Languages** - Python, Java, PHP, C++, UNIX Shell, HTML, CSS, JS, Ajax, Perl  
**Frameworks** - Twitter API Clients, NLTK, Sklearn, Gensim, Django, Flask, Phonegap  
**Tools** - Git, Android Studio, Adobe Photoshop, JUnit, L<sup>A</sup>T<sub>E</sub>X  
**Databases** - 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