



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) (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

- **Hridoy Sankar Dutta** and Tanmoy Chakraborty. Blackmarket-driven Collusion among Retweeters Analysis, Detection and Characterization. *IEEE Transactions on Information Forensics & 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.

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"

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).

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^AT_EX
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