Soumyottam Chatterjee

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Education

- **University of Houston**, Houston, Texas

  PhD in Computer Science. [January 2015 – August 2019]
  Advisor: Prof. Dr. Gopal Pandurangan.

  - **CGPA:** 3.71
  - **Courses Taken:** *Design and Analysis of Algorithms*, *Programming Languages*, *Distributed Network Algorithms*, *Theory of Computation*, *Parallel Computations*.

- **Indian Statistical Institute**, Kolkata, India

  Master of Technology in Computer Science. [July 2008 – July 2010]
  - **Aggregate Marks:** 78.3%

- **Jadavpur University**, Kolkata, India

  Bachelor of Electronics and Tele-Comm. Engineering. [July 2004 – May 2008]
  - **CGPA:** 8.92 (on a 10-point scale)

Research Experience

- **Texas A&M University**, College Station, Texas

  Postdoctoral Fellow in Computer Science. [September 2020 – May 2021]
  Advisor: Prof. Dr. Jennifer Welch.

  - Worked on implementing *shared* data objects with guaranteed *consistency conditions*.

- **Georgetown University**, Washington, D.C.

  Postdoctoral Fellow in Computer Science. [November 2019 – August 2020]
  Advisor: Dr. Calvin Newport.

  - Worked on the *Byzantine consensus* problem in distributed, asynchronous systems.

Journal Publications

1. **Soumyottam Chatterjee**, Gopal Pandurangan, and Peter Robinson. *The Complexity of Leader Election in Diameter-Two Networks*, **Distributed Computing, 2019**.

Available on the publisher's website at
http://link.springer.com/article/10.1007/s00446-019-00354-2.

2. **Soumyottam Chatterjee** and Shamik Ghosh. *Ferrers Dimension and Boxicity*, **Discrete Mathematics, 2010**.
   Available on the publisher's website at
   https://www.sciencedirect.com/science/article/pii/S0012365X1000172X.

Conference Publications

1. **Soumyottam Chatterjee**, Robert Gmyr, and Gopal Pandurangan. *Sleeping is Efficient: MIS in $O(1)$-rounds Node-averaged Awake Complexity*, The 39th ACM Symposium on Principles of Distributed Computing (**PODC 2020**).
   Available on the publisher's website at
   https://dl.acm.org/doi/10.1145/3382734.3405718.

2. **Soumyottam Chatterjee**, Gopal Pandurangan, and Nguyen Dinh Pham. *Distributed MST: A Smoothed Analysis*, The 21st International Conference on Distributed Computing and Networking (**ICDCN 2020**).
   Available on the publisher's website at
   https://dl.acm.org/doi/abs/10.1145/3369740.3369778.

3. **Soumyottam Chatterjee**, Gopal Pandurangan, and Peter Robinson. *Network Size Estimation in Small-world Networks under Byzantine Faults*, The 33rd IEEE International Parallel & Distributed Processing Symposium (**IPDPS 2019**).
   Available on the publisher's website at
   https://ieeexplore.ieee.org/document/8821050.

4. **Soumyottam Chatterjee**, Reza Fathi, Gopal Pandurangan, and Nguyen Dinh Pham. *Fast and Efficient Distributed Computation of Hamiltonian Cycles in Random Graphs*, The 38th IEEE International Conference on Distributed Computing Systems (**ICDCS 2018**).
   Available on the publisher's website at
   https://ieeexplore.ieee.org/document/8416342.

5. **Soumyottam Chatterjee**, Gopal Pandurangan, and Peter Robinson. *The Complexity of Leader Election: A Chasm at Diameter Two*, The 19th International Conference on Distributed Computing and Networking (**ICDCN 2018**). **(Was nominated for the *best paper* award.)**
   Available on the publisher's website at
   https://dl.acm.org/citation.cfm?id=3154308.

Manuscripts in Preparation

1. **Soumyottam Chatterjee**, Calvin C. Newport, and Peter Robinson. *Byzantine Fault-Tolerant Consensus with an Abstract MAC Layer*.

2. Aditya Biradavolu, **Soumyottam Chatterjee**, Dariusz R. Kowalski, and Jennifer L. Welch. *Tradeoff Algorithms for Simulating Multivalued Registers from Binary Registers.*

3. John Augustine, **Soumyottam Chatterjee**, Robert Gmyr, and Gopal Pandurangan. *Secure, Robust, and Efficient Distributed Computation in Dynamic Peer-to-peer Networks.*

4. **Soumyottam Chatterjee**, Gopal Pandurangan, and Peter Robinson. *Keeping Score against Evildoers: Byzantine-Resilient Counting in Networks.*

Professional Services

- Served as a program committee member at the 22$^{\text{nd}}$ International Conference on Distributed Computing and Networking (**ICDCN 2021**).

- Served as a sub-reviewer at

  1. The 21$^{\text{st}}$ International Conference on Distributed Computing and Networking (**ICDCN 2020**).
  2. The 46$^{\text{th}}$ International Colloquium on Automata, Languages and Programming (**ICALP 2019**).
  3. The 39$^{\text{th}}$ IEEE International Conference on Distributed Computing Systems (**ICDCS 2019**).
  4. The 33$^{\text{rd}}$ IEEE International Parallel & Distributed Processing Symposium (**IPDPS 2019**).
  5. The 20$^{\text{th}}$ International Symposium on Stabilization, Safety, and Security of Distributed Systems (**SSS 2018**).
  6. The 32$^{\text{nd}}$ International Symposium on Distributed Computing (**DISC 2018**).
  7. The 25$^{\text{th}}$ International Colloquium on Structural Information and Communication Complexity (**SIROCCO 2018**).
  8. The 30$^{\text{th}}$ ACM Symposium on Parallelism in Algorithms and Architectures (**SPAA 2018**).
  9. The 38$^{\text{th}}$ IEEE International Conference on Distributed Computing Systems (**ICDCS 2018**).
  10. The 29$^{\text{th}}$ ACM-SIAM Symposium on Discrete Algorithms (**SODA 2018**).
  11. The 13$^{\text{th}}$ International Symposium on Algorithms and Experiments for Wireless Networks (**ALGOSENSORS 2017**).

Awards and Scholarships

1. Recipient of the *outstanding doctoral dissertation award* at the Department of Computer Science at **University of Houston**. [2019]

2. Nominated for the *best paper award* at the 19$^{\text{th}}$ International Conference on Distributed Computing and Networking (**ICDCN 2018**) for the paper *The Complexity of Leader Election: A Chasm at Diameter Two*. [2018]

3. Recipient of the *NBHM PhD Fellowship in Mathematics*, awarded by the **Government of India**, for showing strong depth and breath of knowledge in Mathematics and outstanding research potential in the same. [2010]

4. Recipient of Prize Money for ranking 2nd in the 1st year 2nd semester examination in **M. Tech. at Indian Statistical Institute - Kolkata**. [2009]

5. Recipient of Prize Money for ranking 1st in the 1st year 1st semester examination in **M. Tech. at Indian Statistical Institute - Kolkata**. [2008]

Last Updated: June 5$^{\text{th}}$, 2021.