Arghya Roy Chaudhuri

Contact:
Dept. of CSE
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Areas of Interest

1. Multi-Armed Bandits and Recommender Systems.
2. Reinforcement Learning.
3. Large-Scale Machine Learning.

Publications

1. Arghya Roy Chaudhuri and Shivaram Kalyanakrishnan. Regret minimisation in multi-armed bandits using bounded arm memory. In *Proceedings of the Thirty-fourth AAAI Conference on Artificial Intelligence (AAAI 2020), AAAI Press, 2020.*.
2. Arghya Roy Chaudhuri and Shivaram Kalyanakrishnan. PAC identification of many good arms in stochastic multi-armed bandits. In *Proceedings of the 36th International Conference on Machine Learning*, volume 97 of *Proceedings of Machine Learning Research*, pages 991–1000, Long Beach, California, USA, 09–15 Jun 2019. PMLR.
3. Arghya Roy Chaudhuri and Shivaram Kalyanakrishnan. Quantile-regret minimisation in infinitely many-armed bandits. In *Proceedings of the Thirty-Fourth Conference on Uncertainty in Artificial Intelligence (UAI 2018)*, pages 425–434. AUAI Press, 2018.
4. Arghya Roy Chaudhuri and Shivaram Kalyanakrishnan. Pac identification of a bandit arm relative to a reward quantile. In *Proceedings of the Thirty-first AAAI Conference on Artificial Intelligence (AAAI 2017)*, pages 1777–1783. AAAI Press, 2017.
5. Arghya Roy Chaudhuri and M. Narasimha Murty. On the relation between K-means and PLSA. In *Proceedings of the 21st International Conference on Pattern Recognition (ICPR2012)*, pages 2298–2301. IEEE Computer Society, 2012.

Employment

Amazon Development Centre India
Started working in September 2019.
Designation: *Applied Data Scientist II*.

Social Audience Pvt. Ltd.
Oct, 2013 to June, 2014.
Designation: *Lead Software Engineer*.
Project: *Trend Detection and Tracking in Social Media using Machine Learning*.

Juniper Networks.
July, 2012 to Oct, 2013.
Designation: *Software Engineer 2*.
Team: *Management Verification and Infrastructure*.

Brocade Communication Systems Inc.
July, 2011 to July, 2012.
Designation: *Software Engineer 2*.
Team: *Linux Infrastructure team*.

Internship

Research-Intern at Decision Sciences and Algorithms Lab, TCS (Mumbai) during 2-May-2017 to 14-July-2017.

Education

Period: July, 2014 - Current.
Pursuing Degree: Ph.D. at Dept. of Computer Science & Engineering [Thesis is under review].
Guide: Prof. *Shivaram Kalyanakrishnan*.
CPI: 8.36/10.
Area of research: Multi-Armed Bandits.
Institute: Indian Institute of Technology Bombay.

Period: 2009 - 2011.
Acquired Degree: M. E. *in* System Science & Automation.
Major Subjects: Topics in Pattern Recognition, Linear Algebra, Stochastic Modeling and Applications, Linear and Non-Linear Optimization.
Grade: $5.6/8 + A$, *First Class*.
Institute: Indian Institute of Science.

Period: 2005 - 2009.
Acquired Degree: B. Tech. *in* Computer Science & Automation.
Grade: 7.99/10.
Institute: Heritage Institute of Technology.
University: West Bengal University of Technology.

Year: 2005.
Passed: $10 + 2$ (Higher Secondary Examination).
Score: 805/1000.
Board: West Bengal Council of Higher Secondary Education.

Achievements

1. Recipient of Google's Student Travel Grant to present at ICML 2019.
2. Recipient of Google's Student Travel Grant to present at AAAI 2017.
3. Received *Honorable Mention* at Research and Innovation Symposium for Computer scientists (RISC), organized by Dept. of CSE, IIT Bombay in *2016 and 2017*.
4. AIR 71 in GATE 2009, in Computer Science and Information Technology.

Theses

Ph. D. Thesis:	Quantile-Based Reduction of Large Bandit Instances.
Guide:	Prof. Shivaram Kalyanakrishnan (Dept. of CSE, IIT Bombay).
M. E. Thesis:	Generalization and Performance Optimization for Unsupervised Machine Learning Algorithms.
Year:	2011.
Guide:	Prof. M. Narasimha Murty (Dept. of CSA, IISc).
B. Tech. Thesis:	Target Specification of Micro-RNA on mRNA by Machine Learning Approach.
Year:	2009.
Guide:	Prof. Sanghamitra Bandyopadhyay (Machine Intelligence Unit, ISI Kolkata).

Technical Skill

1. Thorough knowledge and working experience in Machine Learning.
2. Algorithm development.
3. Proficient in C and Python.