

Suneel Sarswat

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Experience

Publications

1. “Continuous double auctions: characterization and formalization“ with Mohit Garg (Under review)
2. “Verified Double Sided Auctions for Financial Markets.“ with Raja Natarajan and Abhishek Kr Singh (ITP 2021)
3. “Formally Verified Trades in Financial Markets.“ with Abhishek Kr Singh (ICFEM 2020)
4. “Identifying collusion groups using spectral clustering.“ with Kandathil Mathew Abraham and Subir Kumar Ghosh (2015)
5. Master thesis:- “Studying Lower bounds for conflict-free coloring of guards in polygons.“ (2013-2015)

Important Talks

1. “A Formal Framework for Matching Algorithms in Financial Markets“ at IDRBT, Hyderabad.
2. “Program analysis of stock exchange matching algorithms“ at National Institute of Securities Markets.
3. “Machine Learning applications in the stock markets“ at Bombay Stock Exchange (BSE), Mumbai.
4. “On conflict-free coloring of guards in polygon“ during workshop on Geometry and graph theory at Indian Institute of Science (IISc), Bangalore.

Projects

1. “Automated surveillance system to detect collusion in stock markets“, SEBI project. (20011-2012)
2. “Network for Securities Markets Data (NSMD)“, NISM project. (2009-2011).
3. “Assessment of Long Term Performance of Credit Rating Agencies in India“, Ministry of Finance project. (2009)

Workshops/ trainings

1. Half day session during Programme on Investigating Economic Crimes in Securities Markets for Revenue Officers. (08 October, 2021 - online)
2. Half day session during Workshop on Financial Econometrics jointly organized by BASE University and The Indian Econometric Society. (02 September, 2021 - online)
3. Half day training to SEBI, RBI and IRDAI (regulators) officers on quantitative techniques in forensic analysis, Mumbai. (26 February, 2020)
4. Designed and conducted two days training on machine learning for Reserve Bank of India (RBI) officers, Mumbai. (16-17th May, 2019)
5. Designed, taught and organized two days national workshop on Computational Finance at NISM, Mumbai. (24-25th March, 2010)

Teaching

1. Adjunct faculty, National Institute of Security Market (NISM), Mumbai 2020-present.
2. Visiting faculty, Meghnad Desai Academy Of Economics (MDAE), Mumbai 2015-2020.
3. Visiting faculty at National Institute of Industrial Engineering (NITIE, Mumbai), 2010-2012.
4. Visiting faculty at Narsee Monjee Institute of Management Studies (NMIMS), Mumbai, 2008-2011.
5. Lecturer at National Institute of Security Market (NISM), Mumbai 2009-2012.

Courses: Financial Analytics, Machine Learning, Advance Programming, Computational Finance and Mathematics.

Professional engagement

2020–present	Consultant at Decimal Point Analytics, Mumbai, India.
2020–present	Adjunct faculty at National Institute of Securities Markets (NISM), Mumbai, India.
2012–2017	Research scholar at School of Theoretical Computer Science, Tata Institute of Fundamental Research (TIFR), Mumbai, India.
2009–2012	Lecturer at National Institute of Securities Markets (NISM), Mumbai, India.
2006–2009	Research analyst at Bank of America, Mumbai, India.

Education

2015–current	PhD in Computer Science, Tata Institute of Fundamental Research, Mumbai ,India. (pursuing)
2012–2015	M.S. in Computer Science, Tata Institute of Fundamental Research, Mumbai ,India.
2003–2005	M.Sc. in Applied Statistics and Informatics, Indian Institute of Technology, Mumbai, India.
1999–2003	B.Sc. in Mathematics & Physics & Chemistry, Rajasthan University, Jaipur, India.

Other details

Interactive Theorem Prover	Coq, Fstar
Programming Skills	C/C++, Python, MATLAB, R.
Language	English, Hindi, Rajasthani.
Visits/ Participations	<ol style="list-style-type: none">1. Participated in Trends and Challenges in Quantitative Verification at Infosys, Mysore. (1-4 February, 2016)2. Research visit at Indian School of Business, Hyderabad. (April, 2012)3. Participated in Study Group Mathematics with Industry (SWI 2012) at Eindhoven University of Technology, Eindhoven, Netherlands. (30th January-3rd February 2012)4. Attended Mathematical Training and Talent Search Program (MTTS) held at Indian Institute of Technology, Mumbai. (June, 2000 & June, 2001)

Reference

On Request