

SAURAV CHAKRABORTY

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EDUCATION

PhD in Information Systems and Decision Sciences University of South Florida	August 2016- May 2020
MS in Computer Science Indiana University Bloomington	August 2013- July 2016
Bachelor of Technology in Information Technology West Bengal University of Technology	August 2007- May 2011

RESEARCH INTERESTS:

- Business Analytics, Machine Learning, Financial Markets, Cybersecurity, Epidemiological Modeling and Open Source Platforms.

SELECTIVE ACADEMIC PUBLICATIONS:**JOURNAL PAPERS:**

- Using Agent-Based Modeling to Assess Liquidity Mismatch in Open End Bond Funds; Don Berndt, David Boogers, Saurav Chakraborty, James McCart; Published in *Systems* 2018, 5 (4), 54.
- Augmenting Machine Learning for Automated Industrial IoT Attack Detection: An Efficiency-Complexity Tradeoff; Saurav Chakraborty, Agnieszka Onuchowska, Wolfgang Jank, Sagar Samtani; *Published in ACM Transactions of Management Information Systems, December 2020.*
- Using Agent-Based Modeling to Assess Monetary Policies in Open End Bond Funds; Don Berndt, Saurav Chakraborty, David Boogers; *Under Review at Information Systems Research, September 2021.*
- The Effect of Knowledge Sharing on Open Source Contribution: A Multi-platform Perspective; Vivek Kumar Singh, Saurav Chakraborty, Arjun Kadian, Rohit Nishant; *Under Review at Journal of Management Information Systems, September 2021.*
- Investigating Fake News Propagation on Social Media Using Agent-Based Modeling; Saurav Chakraborty, Agnieszka Onuchowska, Annamina Rieder, Don Berndt; *Under Review at Management Science, September 2021.*

WORKING PAPERS:

- Making Near-Term Predictions for Hospitalization and Covid-19 Spread: A Sliced Time-Weighted Nearest Neighbor Model; Saurav Chakraborty, Balaji Padmanabhan, Shivendu Shivendu, Jason Wilson, David Wein, Seetha Lakshmi; Target: *Journal of Medical Internet Research, December 2021.*
- Impact of BCG Vaccine Inclusion in National Immunization Program on Spread of Covid-19; Saurav Chakraborty, Agnieszka Onuchowska, Arpit Shrivastava, Shivendu Shivendu;
- Using Agent-Based Modeling to Assess the Implications of Changing Liquidity Conditions; Saurav Chakraborty, Don Berndt, David Boogers; Target: *Information Systems Research, March 2022.*
- Changing Heterogeneity of Banking Business Models and Implications on Monetary Policy; Saurav Chakraborty, Don Berndt, David Boogers; Target: *Decision Support Systems, April 2022.*

BOOK CHAPTERS:

- Using Agent-Based Modeling to Assess Liquidity Mismatch in Open End Bond Funds; Don Berndt, Saurav Chakraborty, David Boogers, James McCart; *Summer of Simulation – 50 years of Seminal Computing Research; forthcoming.*

SELECTED CONFERENCE PUBLICATIONS and PRESENTATIONS:

- A Study of Malicious Behavior on Social Media Platforms; Saurav Chakraborty, Agnieszka Onuchowska, Donald J Berndt, Sandeep Goyal; *Partnership for Countering Influence Operations at Carnegie Endowment for International Peace, 2020.*
- The Effect of Knowledge Sharing on Open Source Contribution: A Multi-Platform Perspective; Vivek Kumar Singh, Saurav Chakraborty, Arjun Kadian; *Hawaii International Conference on System Sciences, 2020.*
- Using Agent-Based Modeling to Assess the Implications of Changing Liquidity Conditions; Don Berndt, Saurav Chakraborty, David Boogers, Carles Cabre; *Summer Simulation Conference, 2019*
- IIoT Network Attack Detection using FDA and Wavelets; Saurav Chakraborty, Agnieszka Onuchowska, Wolfgang Jank; *Winter Conference on Business Analytics, 2019*
- A hierarchical model of the Fed Funds Market; Don Berndt, David Boogers, Saurav Chakraborty; *Winter Conference on Business Analytics Utah, 2019.*

- IoT Network Attack Detection using FDA and Wavelets; Saurav Chakraborty, Agnieszka Onuchowska, Wolfgang Jank, Utkarsh Shrivastava; *Winter Conference in Business Analytics Utah, 2019.*
- An Ensemble Agent-Based Model of the Federal Funds Market; Donald J Berndt, David Boogers, Saurav Chakraborty; *Summer Simulation Conference, 2018.*
- Detection and classification of attacks on IoT networks; Agnieszka Onuchowska, Saurav Chakraborty, Wolfgang Jank, Utkarsh Shrivastava; *American Conference on Information Systems 2018.*
- Using Agent-Based Modeling to Assess Liquidity Mismatch in Open End Bond Funds, Don Berndt, David Boogers, Saurav Chakraborty, James McCart; *Summer Simulation Conference, Multi Conference Best Paper Award, 2017*
- Data Visualization and Sonification for financial agent models, Saurav Chakraborty, Don Berndt, Ratish Dalvi; *American Conference on Information Systems 2017.*
- Blockchain based resource management system; Saurav Chakraborty, Kaushik Dutta; *Workshop on Information Technologies and Systems 2017.*
- An analysis of stability of Interbank Loan Markets: A Simulated Network Approach; Saurav Chakraborty, Kaushik Dutta, Jordan Gaeta, Don Berndt; *Hawaii International Conference on System Sciences, 2017*
- Knowledge Sharing and Contribution Trade-off in Open Source Community; Vivek Kumar Singh, Saurav Chakraborty, Onochie Fan-Osuala; *Submitted to Workshop on Information Systems and Economics, 2019.*
- Clustering heterogeneous commercial bank lending models; Saurav Chakraborty, Don Berndt, David Boogers; *Submitted to Workshop on Information Systems and Economics, 2019.*

TEACHING EXPERIENCE:

University of Louisville

Instructor

Fall 2020- Present

- Designed and delivered a course in MSBA program on programming for analytics using Python
- Designed and delivered a course in MSBA program on Data Mining.

University of South Florida

Instructor of Record

Spring 2019- Spring 2020

- Delivered a course in Database Design and Administration. Delivered lectures, designed and conducted tests and subsequent grading. (Rating 4.95/5.00)
- Delivered a course in Python for Business Analytics. (Rating 4.5/ 5)
- Delivered an online course on Business Data Communication (Rating 4.4/5)

Graduate Programming Tutorial Coordinator (Rating 4.5/5)

August 2018, 2019

- Delivered a python programming boot camp on data structure and algorithms.

Indiana University Bloomington

August 2013 – July 2016

Instructor of Record for the course A290 that consists of two eight-week courses:

- Designed and delivered the entire courses on Introduction to python programming. Conducted tests and consequent grading.

Onramp Course Developer:

- I had to develop and deliver several online courses ranging from 4 weeks to 8 weeks. During the summer of 2016, I prepared and delivered 8-week online introduction to programming courses on Python, R, Tableau and Scala.

Associate Instructor for various courses including C212 (Java), B501 (Theory of Computing), B490 (PL/SQL), A202 (Python):

- Major responsibilities included conducting lab sessions, grading and providing clarifications to student doubts.
- Mentored 3 students as part of the UROC program during Spring semester 2015/16. I had to mentor 3 undergraduate students in preparing projects for a research poster competition.

PROFESSIONAL EXPERIENCE:

Tata Consultancy Services Ltd.

Java Developer

March 2012- February 2013

- Implemented change requests by understanding the underlying business processes

Assistant System Engineer Trainee

Dec 2011 - March 2012

- Developed Software for Online Questionnaire and Automated Grading.

- Managed and supervised a group of six members (Module lead). Integrated the code of three sub-modules to build the software.

IBM

Summer Intern

May 2010-August 2010

- Developed single slide ISMs, covering all facets associated with each of the 34 industries that are catered by IBM.
- Conducted a study and developed a learning manual for DOJO, a java toolkit, for future employees. The tutorial included extensive documentation exploring the salient features of the application.

SKILLS:

- Programming- Expert and Tutor of R and Python programming. Experienced programmer in C and Java.
- Visualization tools: Tableau.
- Databases: MySQL, Oracle, Mongo DB.

CERTIFICATIONS:

- Oracle certified Java Programmer.

AWARDS, SCHOLARSHIPS AND GRANTS:

- **Graduate Scholarship:** University of South Florida 2017-2020.
- **International Travel Grant:** Office of Graduate Studies, University of South Florida, 2019. (USD 1500)
- **Summer Research Award:** University of South Florida, 2019. (USD 2860)
- **University Graduate Fellow:** University of South Florida, 2016. (USD 20,000)
- **Graduate Scholarship:** Indiana University Bloomington 2013-2016.

SERVICE:

- Accepted to the Doctoral Consortium at ICIS 2019 in Munich.
 - Accepted to the Doctoral Consortium at AMCIS 2019 in Cancun.
 - Webmaster for WITS 2019.
 - Reviewer for Decision Sciences 2019
 - Reviewer for AMCIS (2018, 2019).
 - Reviewer for WITS 2018
 - Reviewer for Big Data (2016, 2017, 2018).
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