Michele Samorani

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Education

Ph.D. in Operations and Information Management, University of Colorado at Boulder, May 2012

M.Eng. in Computer Science, University of Bologna, Italy, March 2006

B.Eng. in Computer Science, University of Bologna, Italy, July 2003

Academic Experience

Assistant Professor, Leavey School of Business, Santa Clara University, 2016 – present

Assistant Professor, Alberta School of Business, University of Alberta, 2012 –2016

Honors, Awards, and Fellowships

- Honorable Mention for the Best Non-Student Paper Award, INFORMS Data Mining Section, 2017
- Leavey School of Business Teaching Award 2017
- Award POMS Appreciation award 2017
- "Xerox Faculty Fellowship", $15,000, University of Alberta, 2016-2017

- Industry Grant Principal Investigator, $20,000, 2014-2015
- SAS Fellowship for a "Transformative Project", $5,000, University of Alberta, 2014
- "Nova Faculty Fellowship", $12,000, University of Alberta, 2012-2013
- Semi-finalist of the INFORMS Innovation in Analytics Award, 2012
- Winner of the 2009 INFORMS Data Mining Best Student Paper Award

Teaching Evaluations, last 5 years

- Systems Programming, Santa Clara University, undergraduate elective, Fall 2016 (22 students, eval: 4.7 / 5.0), Spring 2017 (20 students, eval: 4.7 / 5.0), Fall 2017 (32 students, eval 4.4 / 5.0), Winter 2018 (19 students, eval 4.8 / 5.0), Fall 2018 (27 students, eval 4.4 / 5.0)
- Data Science Analysis with Python, Santa Clara University, graduate elective, Winter 2017 (20 MSIS students, eval: 4.6 / 5.0, 10 MBA students, eval: 4.8 / 5.0), Spring 2017 (23 MSIS students, eval: 4.5 / 5.0, 7 MBA students, eval: 4.6 / 5.0), Fall 2017 (25 MSIS students, eval 4.5 / 5.0, 6 MBA students, eval: 4.6 / 5.0), Fall 2018 (13 MSIS students, eval 4.4 / 5.0, 4 MBA students, eval 4.2 / 5.0). Winter 2019 (33 MSBA students 4.9 / 5.0, 30 MSBA students 4.8 / 5.0).
- Operations Management, University of Alberta, undergraduate mandatory, Fall 2014 (294 students, eval: 4.3 / 5.0), Fall 2015 (257 students, eval: 4.7 / 5.0)
- Introduction to Business Analytics, University of Alberta, undergraduate and MBA elective, Winter 2015 (29 students, eval: 4.7 / 5.0)

Research

Refereed Journal Articles

1. Samorani, M., S. Harris, L.G. Blount, H. Lu, M.A. Santoro. Overbooked and Overlooked: Machine Learning and Racial Bias in Medical Appointment Scheduling. 2019. Submitted to *Management Science*.

2.   Arazy, O., A. Lindberg, M. Rezaei, M. Samorani. The Evolutionary Trajectories of Peer-Produced Artifacts: The Curvilinear Effects of Exploration. Conditionally accepted at *MIS Quarterly*.

3.   Samorani, M., A. Alptekinoglu, P. Messinger. Product Return Episodes in Retailing. Accepted at *Service Science*.

4.   Soltani, M., M. Samorani, B. Kolfal. Appointment Scheduling with Multiple Providers and Stochastic Service Times. *European Journal of Operational Research*. Accepted.

5.   Samorani, M., Y. Wang, Y. Wang, Z. Lv, F. Glover. 2019. Clustering-driven evolutionary algorithms: an application of path relinking to the quadratic unconstrained binary optimization problem. *Journal of Heuristics*, pp.1-14. https://doi.org/10.1007/s10732-018-9403-z

6.   Rezaei, M., Cribben, I. and Samorani, M., 2018. A clustering-based feature selection method for automatically generated relational attributes. *Annals of Operations Research*, pp.1-31.

7.   Samorani, M., S. Ganguly. 2016. Optimal Sequencing of Unpunctual Patients in High-Service Level Clinics. *Production and Operations Management*, 25(2) 330-346.

8.   Samorani, M., L. LaGanga. 2015. Outpatient Appointment Scheduling given Individual Day-Dependent No-Show Predictions. *European Journal of Operational Research*, 240(1) 245-257.

9.   Samorani, M., M. Laguna. 2012. Data-Mining-Driven Neighborhood Search, *INFORMS Journal on Computing*, 24(2) 210-227.

10.   Samorani, M., M. Laguna, K.R. DeLisle, D. Weaver. 2011. A Randomized Exhaustive Propositionalization Approach for Molecule Classification. *INFORMS Journal on Computing*, 23(3) 331-345.

11.   Better, M, F. Glover, M. Samorani. 2010. Classification by Vertical and Cutting Multi-Hyperplane Decision Tree Induction. *Decision Support Systems*, 48(3) 430-436.

Work in Progress

1.   Samorani, M., M. Laguna. Mining High-Quality Solutions to Learn Effective and Interpretable Heuristics.

2.   Samorani, M., D. Zimbra. Measuring the Quality of SQL Queries

Other Refereed Publications

1. Samorani, M., S, Harris. 2019. The Impact of Probabilistic Classifiers on Appointment Scheduling with No-Shows. The 40th International Conference on Information Systems (ICIS). Munich, Germany. Historical acceptance rate ~17%, 1st ranked Information Systems conference.

2. Samorani, M., M. Laguna. 2017. Mining High-Quality Solutions to Learn Effective and Interpretable Heuristics. *Proceedings of 2017 INFORMS Workshop on Data Mining and Analytics (DMA 2017). C. Iyigun, R. Moghaddess, M. Samorani, eds*.

3. Harris, S., M. Samorani. 2017. The Impact of No-Show Predictions on Appointment Scheduling. *Proceedings of 2017 INFORMS Workshop on Data Mining and Analytics (DMA 2017). C. Iyigun, R. Moghaddess, M. Samorani, eds*.

4. Ahmed, F., M. Samorani, C. Bellinger, O. Zaiane. 2016. *Advantage of Integration in Big Data: Feature Generation in Multi-Relational Databases for Imbalanced Learning*. IEEE International Conference on Big Data. 19% acceptance rate.

5. Samorani, M., F. Ahmed, O. Zaiane. 2016. *Automatic Generation of Relational Attributes: An Application to Product Returns*. IEEE International Conference on Big Data. 19% acceptance rate.

6. Samorani, M. 2015. Automatically Generate a Flat Mining Table with Dataconda. *The International Conference of Data Mining (ICDM) Workshops*

7. Samorani, M. 2015. Dataconda: A Software Framework for Mining Relational Databases. *International Conference on Advances in Databases, Knowledge, and Data Applications (DBKDA)*, May 24 - 29, 2015 - Rome, Italy. Acceptance rate: 29%

8. Samorani, M. 2014. Automatic Generation of Relational Independent Variables. *Proceedings of 2014 INFORMS Workshop on Data Mining and Analytics (DMA 2014)*. D. Sundaramoorthi, H. Yang, eds.

9. Poursaeidi, M. H., M. Samorani, and O. E. Kundakcioglu. 2013. "Offshore Wind Farm Layout Optimization: What is the Hype?" in Proceedings of the Industrial and Systems Engineering Research Conference, ID: 952.

10. Samorani, M. 2013. The wind farm layout optimization problem. In Handbook of Wind Power Systems (pp. 21-38). Springer Berlin Heidelberg.

11.   Samorani M., L. LaGanga. A Stochastic Programming Approach to Improve Overbooking in Clinic Appointment Scheduling, POMS Annual Meeting 2011.

Internal Service

- Hiring committee 2017, 2018, 2019
- Part of the committee charged to redesign the curriculum for the MIS undergraduate program and the BA undergraduate program, 2018
- Judge of Broncohack, 2018
- Part of Committee for the Undergraduate Department Award Selection, 2018

Invited Presentations

- I was invited to present my research to the Department of Veteran Affairs at the workshop "Key Operational Characteristics and Functionalities of a State-of-the-Art Patient Scheduling System", hosted by the National Academies of Science, Engineering, and Medicine. May 16-17, 2019, Washington DC.
- University of Alberta, Canada, July 26 2019

External Service

- Guest Editor for Special issue on Intensification, Diversification, and Learning in Metaheuristic Optimization, *Journal of Heuristics*, 2017-2018.
- Track co-chair of the Healthcare scheduling track, POMS 2017.
- Associate Editor in the area "Big Data & Business Analytics" of the Journal of Modelling in Management, 2017-present.
- Stream Organizer of the Heuristics/Metaheuristics Stream at the 2011 and 2015 ICS Conferences.
- Judge for the INFORMS Data Mining student paper award, 2010-2016.

- Co-organizer of the "Best of Analytics" conference, Edmonton, April 2013
- Ad-hoc associate editor for *Information Technology and Management*
- Ad-hoc reviewer (selected invitations from last 5 years): *INFORMS Journal on Computing*, *Production and Operations Management*, *Annals of Operations Research, Decision Sciences, Service Science, European Journal of Operational Research, IIE Transactions on Healthcare Systems Engineering*, *IEEE Transactions on Circuits and Systems.*