

## Dr. Nichalin S. Summerfield

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## **EDUCATION AND ACADEMIC QUALIFICATIONS**

Ph D, Department of Management Information Systems, The University of Arizona, 2010.
Major: Operations Management
Supporting Areas of Emphasis: Economics Minor

MS, Department of Management Information Systems, The University of Arizona, 2005. Major: Management Information Systems

BEE, Sirindhorn International Institute of Technology, Thammasat University, 1998. Major: Electrical Engineering (Honors)

Assistant Professor - Department of Operations & Information Systems, University of Massachusetts Lowell. (September 2016 - Present).

Lecturer - Department of Decision and Information Sciences, University of Massachusetts Dartmouth. (September 2012 - August 2016).

Adjunct Lecturer - Department of Management Information Systems, The University of Arizona. (January 2011 - December 2011).

Teaching/Research Associate - Department of Management Information Systems, The University of Arizona. (August 2007 - December 2010).

Teaching/Research Associate - Artificial Intelligence Lab, The University of Arizona. (August 2005 - July 2007).

### PROFESSIONAL ACTIVITIES

# **Professional Memberships**

INFORMS Health Applications Society. (2018 - Present).

INFORMS Analytics Society. (2017 - Present).

Decision Sciences Institute. (2014 - Present).

Production and Operations Management Society. (2014 - Present).

Institute for Operations Research and the Management Sciences. (2007 - Present).

Manufacturing & Service Operations Management. (2007 - Present).



## **Awards and Honors**

## Scholarship/Research

CCB Research Award, Charlton College of Business, UMass Dartmouth. (2015).

Dean's Research Award, Eller College of Management, The University of Arizona. (2009).

GPSC Travel Grant, The University of Arizona. (2009).

### Teaching

Department's Teaching Excellence Award, Operations & Information Systems Department, UMass Lowell. (May 2018).

Thomas J. Higginson Awards for Excellence in Teaching, Charlton College of Business, UMass Dartmouth. (2016).

Provost's Best Practices Awards for Innovative Use of Technology, UMass Dartmouth. (2015).

Dean's Teaching Award, Eller College of Management, The University of Arizona. (2009).

James F. LaSalle Award for Teaching Excellence, Eller College of Management, The University of Arizona. (2009).

Dean's Teaching Award, Eller College of Management, The University of Arizona. (2008).

### **Professional Positions**

## **Professional**

Part-Time Software Engineer - Lunar and Planetary Lab, The University of Arizona. (January 2004 - July 2005).

IT Consultant, Accenture, Bangkok, Thailand. (July 1998 - July 2003).

## Consulting

Lowell General Hospital, Lowell, MA. (June 2018 - Present).

UMass Lowell Men's Ice Hockey, Lowell, MA. (May 2018 - May 2019).

Large IT corporation (name withheld due to non-disclosure agreement). (April 2018 - July 2018).

MFS, Boston, MA. (November 2017 - May 2018).

### RESEARCH



# **Contracts, Grants and Sponsored Research**

### Grant

- Summerfield, N. (Co-Principal), Chen, D. (Principal), Deokar, A. (Co-Principal), "Leverage Data Analytics and Game Theory to Study Complex Urban Transportation," Sponsored by Internal Seed Funding Program, University of Massachusetts Lowell, \$10,000.00. (July 2017 July 2019).
- Oztekin, A. (Principal), Knight, M. (Co-Principal), Evans, K. (Supporting), Summerfield, N. (Supporting), Lee, S. E. (Supporting), Ackerson, L. K. (Supporting), "A Holistic Data Analytic Modeling of Health Outcomes for Different Vulnerable Risk Groups," Sponsored by IDEA Leadership Fund, University of Massachusetts Lowell. (May 1, 2018 May 1, 2019).
- Kronrod, A. (Supporting), Knight, M. (Principal), Evans, K. (Co-Principal), Summerfield, N. (Co-Principal), Abdallah, L. M. (Co-Principal), Oztekin, A. (Supporting), "The CARE Act: Processes Affecting the Community/Caregiver Perspective of Caring for Older Adults," Sponsored by Manning School of Business and the Zuckerberg College of Health Sciences, University of Massachusetts Lowell, \$4,000.00. (February 2018 February 2019).

### **Published Intellectual Contributions**

#### **Refereed Journal Articles**

- Summerfield, N., Deokar, A., Xu, M., Zhu, W. (2020). Should drivers cooperate? Performance evaluation of cooperative navigation on simulated road networks using network DEA. *To appear in Journal of the Operational Research Society*.
- Summerfield, N. S., Dror, M., Cohen, M. A. (2015). City streets parking enforcement inspection decisions: The Chinese postman's perspective. *European Journal of Operational Research*, 242(1), 149-160.
- Summerfield, N. S., Dror, M. (2013). Biform game: Reflection as a stochastic programming problem. *International Journal of Production Economics*, *142*(1), 124-129.
- Summerfield, N. S., Dror, M. (2012). Stochastic programming for decentralized newsvendor with transshipment. *International Journal of Production Economics*, 137(2), 292-303.
- Suakkaphong, N., Dror, M. (2011). Managing decentralized inventory and transshipment. *TOP Journal of the Spanish Society of Statistics and Operations Research*, 19(2), 480-506.
- Suakkaphong, N., Zhang, Z., Chen, H. (2011). Disease named entity recognition using semisupervised learning and conditional random fields. *Journal of the American Society for Information Science and Technology, 62*(4), 727-737.
- Netcharussaeng, N., Suakkaphong, N., Tungthangthum, A., Chintrakulchai, P. (1999). Database for Student Registration System At SIIT. *Thammasat International Journal of Science and Technology, 4*(1), 19-26.

## **Intellectual Contributions in Submission**



#### Journal Articles

Nasir, M., Summerfield, N., Dag, A., Oztekin, A. A Data Analytic Approach to Studying Patient No-Shows.

# **Presentations Given**

- Oztekin, A. (Author & Presenter), Nasir, M. (Author), Summerfield, N. (Author), Decision Sciences Institute 50th Annual Conference, "A Close Look Into The Substance Epidemic and Substance Use Disorder Problem: A Holistic Data Analytics Approach," New Orleans, LA. (November 2019).
- Summerfield, N. (Author & Presenter), Abdallah, L. M. (Author), Evans, K. (Author & Presenter), Knight, M. (Author & Presenter), LGH Research and Quality Fair, "Discharging Patients: A Successful Complex and Multidisciplinary Effort: Overview of discharge process research project in collaboration with the Manning School of Business. Zuckerberg College of Health Sciences," Lowell General Hospital, Lowell, MA. (October 2019).
- Summerfield, N. (Author & Presenter), Nasir, M. (Author), Oztekin, A. (Author), Dag, A. (Author), 2019 INFORMS Annual Meeting, "Predicting Patient No-shows via a Hybrid Business Analytics Methodology," INFORMS, Seattle, WA. (October 23, 2019).
- Lee, H. C. B., Summerfield, N., Deokar, A., Ahmed, A., 2019 INFORMS Annual Meeting, "Service commitment and customers response: An empirical study on effects of delivery lead time commitment on online ratings," INFORMS, Seattle, WA. (October 20, 2019).
- Evans, K. (Author), Knight, M. (Author), Abdallah, L. M. (Author & Presenter), Summerfield, N. (Author), Lee, S. E. (Author), Zuckerberg College of Health Sciences Spring Retreat, "Discharging Patients: A Successful Complex and Multidisciplinary Effort.

  Overview of discharge process research project in collaboration with the Manning School of Business.," UML Inn & Conference Center. (May 22, 2019).
- Ahmed, A. (Author & Presenter), Lee, H. C. B. (Author), Deokar, A. (Author), Summerfield, N. (Author), Decision Sciences Institute Annual Conference, "Analyzing effect of promised delivery lead time on seller reputation in e-commerce," DSI, Chicago, IL. (November 2018).
- Summerfield, N. (Author & Presenter), Dag, A. (Author), Ajgaonkar, N. (Author), Oztekin, A. (Author), Decision Sciences Institute Annual Conference, "Predicting Patient No-Shows via a Hybrid Business Analytics Methodology," DSI, Chicago, IL. (November 2018).
- Summerfield, N. (Author & Presenter), Dag, A. (Author), Ajgaonkar, N. (Author), Oztekin, A. (Author), INFORMS 13th Data Mining & Decision Analytics Workshop, "Predicting Patient No-Shows via a Hybrid Business Analytics Methodology," Phoenix, AZ. (November 2018).
- Summerfield, N., Oztekin, A., INFORMS Annual Meeting, "A Holistic Data Analytic Approach to Determine Impacts of the Caregiver Advise, Record, Enable (CARE) Act on Reducing Readmission and Mortality Rates among Older Adults," INFORMS, Phoenix, AZ. (November 2018).



- Summerfield, N. (Author), Zhang, J. (Author), Motiwalla, L. F. (Author & Presenter), Mai, T. (Author), Mazza, K. (Author), 3rd North American International Conference on Industrial Engineering and Operations Management, "Using Analytics to Predict Project Management Success," IEOM Society International, Washington, DC. (September 2018).
- Summerfield, N. S. (Presenter), Dror, M., INFORMS Annual Meeting, "Expected Value of Perfect Information (EVPI) of Demand in Propane Distribution Problem," Houston, TX. (2017).
- Summerfield, N. S. (Presenter), Dror, M., INFORMS Annual Meeting, "City Streets Parking Enforcement Inspection Decisions: The Chinese Postman's Perspective," San Francisco, CA. (2014).
- Summerfield, N. S., Dror, M. (Presenter), INFORMS Annual Meeting, "City Streets Parking Enforcement Inspection Decisions: The Chinese Postman's Perspective," Phoenix, AZ. (2012).
- Suakkaphong, N. (Presenter), Dror, M., INFORMS Annual Meeting, "Biform Game: Reflection as a Stochastic Programming Problem," Charlotte, NC. (2011).
- Suakkaphong, N. (Presenter), Dror, M., INFORMS Annual Meeting, "Stochastic Programming Framework for Decentralized Inventory with Transshipment," Charlotte, NC. (2011).
- Suakkaphong, N. (Presenter), Dror, M., MSOM Annual Conference, "Biform Game: Reflection as a Stochastic Programming Problem," Ann Arbor, MI. (2011).
- Suakkaphong, N. (Presenter), Dror, M., MSOM Annual Conference, "Stochastic Programming Framework for Decentralized Inventory with Transshipment," Ann Arbor, Michigan. (2011).
- Suakkaphong, N., Dror, M. (Presenter), Public Economic Theory Conference, "Biform Game: Reflection as a Stochastic Programming Problem," Bloomington, IN. (2011).
- Suakkaphong, N., Dror, M. (Presenter), DOMinant Workshop on Inventory Routing and Fleet-Size-and-Mix Problems, "Managing Decentralized Distribution: Insights and Incentives for Collaboration," Molde, Norway. (2009).
- Suakkaphong, N. (Presenter), Dror, M., INFORMS Annual Meeting, "Managing Decentralized Distribution: Insights and Incentives for Collaboration," San Diego, CA. (2009).
- Suakkaphong, N. (Presenter), Dror, M., INFORMS Western Regional Conference, "Managing Decentralized Distribution: Insights and Incentives for Collaboration," Phoenix, AZ. (2009).
- Suakkaphong, N. (Presenter), Dror, M., International Conference on Game Theory (the 20th Summer Festival on Game Theory), "Managing Decentralized Distribution: Insights and Incentives for Collaboration," Stony Brook, New York. (2009).
- Dang, Y., Zhang, Y., Suakkaphong, N., Larson, C., Chen, H., IEEE International Conference on Intelligence and Security Informatics, "An Integrated Approach to Mapping Worldwide Bioterrorism Research Capabilities." (2008).
- Dang, Y., Suakkaphong, N., Zhang, Y., Wakhare, R., Chen, H., Larson, C., Advances in Disease Surveillance, "Mapping Bioterrorism Agents Research Literature." (2007).



# **Research in Progress**

"(LCHC) Utilizing Data Analytics to Determine Factors Associated with Engagement in Treatment for Patients with Substance Use Disorder and/or Mental Health Diagnoses" (On-Going).

"(LGH) Discharging Patients: A Complex and Successful Multidisciplinary Effort" (Writing Results).

"(SAMHSA) A Close Look into The Substance Epidemic and Substance Use Disorder Problem: A Holistic Data Analytics Approach" (Writing Results).

"Predicting Performance of Ice Hockey Players with Data Analytics" (On-Going).

## **INSTRUCTION RELATED ACTIVITY**

# **Teaching Experience**

## **University of Massachusetts Lowell**

## **MIST**

Course	Title	Section	Credit	Enrollment	Instructor	Semester
Number			Hours			
MIST	Curricular Practical	91	1	2	Summerfield,	Summer 2017
5CO-OP	Training				Nichalin S.	

## **POMS**

Course	Title	Section	Credit	Enrollment	Instructor	Semester
Number			Hours			
POMS	Operations	206	3	40	Summerfield,	Spring 2019
3010	Management				Nichalin S.	
POMS	Operations	207	3	38	Summerfield,	Spring 2019
3010	Management				Nichalin S.	
POMS	Operations	201	3	39	Summerfield,	Fall 2018
3010	Management				Nichalin S.	
POMS	Operations	206	3	39	Summerfield,	Spring 2018
3010	Management				Nichalin S.	
POMS	Operations	207	3	40	Summerfield,	Spring 2018
3010	Management				Nichalin S.	
POMS	Operations	201	3	39	Summerfield,	Fall 2017
3010	Management				Nichalin S.	
POMS	Operations	206	3	40	Summerfield,	Spring 2017
3010	Management				Nichalin S.	



POMS	Operations	207	3	40	Summerfield,	Spring 2017
3010	Management				Nichalin S.	
POMS	Operations	201	3	41	Summerfield,	Fall 2016
3010	Management				Nichalin S.	
POMS	Internship in	201	3	1	Summerfield,	Spring 2018
4890	Operations Mgmt.				Nichalin S.	
POMS	Internship in	201	3	1	Summerfield,	Spring 2017
4890	Operations Mgmt.				Nichalin S.	
POMS	Curricular Practical	901	1	1	Summerfield,	Spring 2017
5CO-OP	Training				Nichalin S.	
POMS	Stats.for Predictive	61	3	15	Summerfield,	Spring 2019
6120	Analytics				Nichalin S.	
POMS	Stats.for Predictive	201	3	37	Summerfield,	Fall 2018
6120	Analytics				Nichalin S.	
POMS	Stats.for Predictive	61	3	15	Summerfield,	Fall 2018
6120	Analytics				Nichalin S.	
POMS	Stats.for Predictive	201	3	20	Summerfield,	Fall 2017
6120	Analytics				Nichalin S.	
POMS	Stats.for Predictive	201	3	12	Summerfield,	Fall 2016
6120	Analytics				Nichalin S.	

# **Directed Student Learning**

Honors-By-Contract, "Analyzing Service Operations at Honor's College." (January 2017 - April 2017).

Advised: Jiarui Zhao

## **Development Activities Attended**

Workshop, "Interdisciplinary Research Event," Manning RAC, UMass Lowell. (February 1, 2019).

Tutorial, "Webinar - AWS Educate Classrooms Overview," Amazon Web Services (AWS). (December 14, 2018).

Symposium Attended, "Merrimack Valley Substance Use Disorder Symposium," Lowell, MA. (December 7, 2018).

Continuing Education Program, "Introduction to Online Teaching with Blackboard," UMass Lowell. (May 21, 2018 - July 1, 2018).

Seminar, "Predicting Interfirm Human Capital Flow: Leveraging Networks and Heterogeneous Effects," Manning School of Business. (April 20, 2018).

Workshop, "Career Mapping Workshop for Assistant Professors," UMass Lowell. (March 5, 2018).



- Seminar, "Sport Analytics," Manning School of Business. (March 1, 2018).
- Seminar, "Readmission Analytics: Care Transformation through Information Technology and Analytics," Manning School of Business. (February 23, 2018).
- Workshop, "Provost's Listening Session for Pre-Tenure Faculty," UMass Lowell. (December 11, 2017).
- Workshop, "MSB Research Seminar and Workshop Series Pharmaceutical Corporate Responsibility Framing: A Sentiment Analysis," Manning School of Business. (April 7, 2017).
- Faculty Program, "Faculty Writing Retreat," UMass Lowell. (March 13, 2017).
- Seminar, "Webinar on lecture capture at UMASS Lowell," UMass Lowell. (January 13, 2017).
- Workshop, "SAP Training Workshop," OIS Department. (January 11, 2017).
- Workshop, "Provost's Listening Session for Pre-Tenure Faculty," UMass Lowell. (October 28, 2016).
- Workshop, "MSB Research Seminar and Workshop Series IBISWorld Research Database Webinar," Manning School of Business. (October 21, 2016).
- Workshop, "MSB Research Seminar and Workshop Series Data Acquisition for Business Analytics," Manning School of Business. (October 14, 2016).
- Workshop, "MSB Research Seminar and Workshop Series- Audit Analytics," Manning School of Business. (October 14, 2016).
- Workshop, "Bloomberg Faculty Training Session," Manning School of Business. (September 28, 2016).
- Workshop, "E-Bites Workshop ORA (Office of Research Admin.), OIC (Office of Institutional Compliance), Procard (University issued credit card)," UMass Lowell. (September 28, 2016).
- Workshop, "New Faculty Classroom Technology Orientation and Teaching Toolkit," UMass Lowell. (August 31, 2016).
- Workshop, "New Employee Orientation," UMass Lowell. (August 22, 2016).
- Tutorial, "Web-enhancing your Face-to-Face Course(s) with Blackboard," UMass Lowell. (June 18, 2016).

## **Academic Advising**

- 32 undergraduate students advised, 0 graduate students advised, approximately 32 hours spent per year. (2019-2020).
- 20 undergraduate students advised, 0 graduate students advised, approximately 20 hours spent per year. (2018-2019).



- 20 undergraduate students advised, 0 graduate students advised, approximately 20 hours spent per year. (2017-2018).
- 2 undergraduate students advised, 0 graduate students advised, approximately 5 hours spent per year. (2016-2017).

### **SERVICE ACTIVITIES**

### **Professional Service**

- Reviewer Ad Hoc Journal Reviewer, Decision Sciences. (2018 Present).
- Reviewer Ad Hoc Journal Reviewer, International Journal of Production Research (IJPR). (2016 Present).
- Reviewer Ad Hoc Journal Reviewer, International Journal of Production Economics (IJPE). (2015 Present).
- Reviewer Ad Hoc Journal Reviewer, European Journal of Operational Research (EJOR). (2013 Present).
- Reviewer Ad Hoc Journal Reviewer, Journal of the Operational Research Society (JORS). (2013 Present).
- Reviewer Ad Hoc Journal Reviewer, Decision Support Systems (DSS). (2016).
- Reviewer Ad Hoc Journal Reviewer, Manufacturing & Service Operations Management (M&SOM. (2012).
- Reviewer Conference Paper submission, Americas Conference on Information Systems (AMCIS 2011). (2011).
- Reviewer Conference Paper submission, International Conference on Information Systems (ICIS 2011). (2011).
- Reviewer Conference Paper submission, International Conference on Electronic Business (ICEB 2010). (2010).

## **University Service**

- Member Search Committee, Operations Management Faculty Search Committee. (October 2019 Present).
- Member Standing Committee, OIS Department Teaching Excellence Committee. (September 2018 Present).
- Member Faculty Senate, UMass Lowell's Faculty Senate. (May 2018 Present).
- Member Standing Committee, UMass Lowell's Manning School of Business Undergraduate Program & Standards Committee (UPC). (September 2016 Present).



UMass Lowell's Welcome Day. (April 2019).

UMass Lowell's Early Action Reception. (February 2019).

Advisor - Student Club or Organization, Internship Faculty Advisor (POMS.4890). (January 2018 - May 2018).

Discussion on Industrial Engineering program. (April 2018).

Lunch hour session for Manning faculty on Healthcare Initiative. (April 2018).

Organizer/Host - Guest speaker/campus event, Mendeley software training for MSB faculty and students. (March 2018).

REMADE Brainstorming and info session. (March 2018).

Mentor - Formal faculty mentoring program, MSBA Student Project Poster session. (December 2017).

Participant, Faculty Symposium - Lightning Talk. (November 2017).

Editing and presenting the proposal as a representative of OM faculty, Management Science Ph.D. concentration proposal. (November 2017).

APICS scholarship. (October 2017).

Advisor - Student Club or Organization, UMass Lowell's Manning School of Business - OIS Club. (September 2016 - August 2017).

UMass Lowell's Commencement. (May 2017).

Member - Standing Committee, UMass Lowell's Manning School of Business - Research Advancement Committee. (September 2016 - December 2016).

MSBA Board meeting at Progress Software. (November 2016).

Attendee, Open house, UMass Lowell's Open house. (October 2016).

Member - Standing Committee, UMass Dartmouth's DIS Dept. - Departmental Curriculum Committee. (September 2012 - May 2016).

Course Coordinator (POM333), UMass Dartmouth's DIS Dept. - Assurance of Learning. (September 2012 - August 2015).

Member - Standing Committee, UMass Dartmouth's DIS Dept. - MIS Lecturer Search Committees. (September 2014 - May 2015).

Member - Standing Committee, UMass Dartmouth's Charlton College of Business - AACSB Participants Committee. (September 2013 - May 2015).



- Advisor Student Club or Organization, UMass Dartmouth's Charlton College of Business Management Consulting Club. (September 2013 May 2015).
- Member Standing Committee, UMass Dartmouth's Math & Busines Center Director Search Committee. (November 2013 July 2014).
- Advisor Student Club or Organization, UMass Dartmouth's Academic Advising Center. (September 2013 May 2014).
- Member Standing Committee, UMass Dartmouth's Charlton College of Business Research Committee. (September 2012 May 2013).