

KYLE J. HUNT

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CURRENT POSITION

Assistant Professor, University at Buffalo School of Management
Department of Management Science and Systems 2023-present

EDUCATION

Ph.D. Industrial Engineering (Operations Research) 2023
University at Buffalo

M.S. Industrial Engineering (Operations Research) 2021
University at Buffalo

B.S. Industrial Engineering 2019
University at Buffalo

RESEARCH INTERESTS

I am interested in using operations research, machine learning, and empirical methods to address problems in security/defense, healthcare, and technology management.

TEACHING INTERESTS

My teaching interests lie in the fields of analytics, operations research, and information systems. I enjoy teaching the theoretical underpinnings of these fields, and am also passionate about teaching in a practice-oriented manner where students understand the value of the skills they learn across the business and management domains.

PUBLICATIONS

*corresponding author role, ^student author

Published and Forthcoming Journal Articles

1. **Hunt, K.***, S. Guney, J. Zhuang, and R. John. "On the Disclosure of Defensive Posture: Adversarial Belief Formation and Target Selection Decisions," *Production and Operations Management*, 34(7): 1995-2014, 2025.
2. Tokel, Y.^, **K. Hunt**, and J. Zhuang "Signaling the Capability of New Counterterrorism Technologies in the Face of a Strategic Threat," *Naval Research Logistics*, 72(3): 440-453, 2025.

3. Steever, Z., **K. Hunt***, M. Karwan, J. Yuan, and C. Murray, "A Graph-based Approach for Relating Integer Programs," *INFORMS Journal on Computing*, 36(6): 1359-1756, 2024.
4. **Hunt, K.***, B. Behlendorf, S. Wang, S. Mukherjee, and J. Zhuang, "Near-repeat Terrorism: Identifying and Analyzing the Spatiotemporal Attack Patterns of Major Terrorist Organizations," *Expert Systems with Applications*, 249: 123712, 2024.
5. Agarwal, P., **K. Hunt***, E. Jose, and J. Zhuang, "Shutdown and Compliance Decisions in the Face of a Viral Pandemic: A Game between Governments and Citizens," *Decision Support Systems*, 178: 114128, 2024.
6. **Hunt, K.** and J. Zhuang, "A Review of Attacker-defender Games: Current State and Paths Forward," *European Journal of Operational Research*, 313(2): 401-417, 2024.
7. Chen, X., Y. Dong, **K. Hunt**, and J. Zhuang, "Counterterrorism Resource Allocation during a Pandemic: The Effects of Dynamic Target Valuations when Facing a Strategic Terrorist," *Risk Analysis*, 43(6): 1235-1253, 2023.
8. **Hunt, K.***, P. Agarwal, and J. Zhuang, "On the Adoption of New Technology to Enhance Counterterrorism Measures: An Attacker-defender Game with Risk Preferences," *Reliability Engineering and System Safety*, 218: 108151, 2022.
9. **Hunt, K.***, A. Narayanan, and J. Zhuang, "Blockchain in Humanitarian Operations Management: A Review of Research and Practice," *Socio-Economic Planning Sciences*, 80: 101175, 2022.
10. **Hunt, K.**, P. Agarwal, and J. Zhuang, "Monitoring Misinformation on Twitter during Crisis Events: A Machine Learning Approach," *Risk Analysis*, 42(8), 1728-1748, 2022.
 - Top cited article in *Risk Analysis*, 2022-2023.
11. Wan, Q., X. Xuanhua, **K. Hunt**, and J. Zhuang, "Stay Home or Not? Modeling Individuals' Decisions during the COVID-19 Pandemic," *Decision Analysis*, 19(4): 319-336, 2022.
12. Ding, X., X. Zhang, R. Fan, Q. Xu, **K. Hunt**, and J. Zhuang, "Rumor Recognition Behavior of Social Media Users in Emergencies," *Journal of Management Science and Engineering*, 7(1): 36-47, 2022.
13. Xia, L., B. Chen, **K. Hunt**, J. Zhuang, and C. Song, "Food Safety Awareness and Opinions: A Social Network Analysis Approach," *Foods*, 11(18): 2909, 2022.
14. Song, C., S. Zhou, **K. Hunt**, and J. Zhuang, "Comprehensive Evolution Analysis of Public Perceptions Related to Pediatric Care: A Sina Weibo Case Study (2013-2020)," *SAGE Open*, 12(1): 21582440221087260, 2022.
15. **Hunt, K.**, P. Agarwal, and J. Zhuang, "Technology Adoption for Airport Security: Modeling Public Disclosure and Secrecy in an Attacker-defender Game," *Reliability Engineering and System Safety*, 207: 107355, 2021.
16. Dong, Y., X. Chen, **K. Hunt**, and J. Zhuang, "Defensive Resource Allocation: The Roles of Forecast Information and Risk Control," *Risk Analysis*, 41(8): 1304-1322, 2021.

17. Agarwal, P., **K. Hunt**, J. Zhuang, B. Sarkar, A. Sarkar, and R. Sharma. "An Exploratory Analysis for Performance Assessment of State Police Forces in India: An Eclectic Approach," *Operational Research*, 21(2): 1125-1151, 2021.
18. **Hunt, K.**, B. Wang, and J. Zhuang, "Misinformation Debunking and Cross-Platform Information Sharing through Twitter During Hurricanes Harvey and Irma: A Case Study on Shelters and ID Checks," *Natural Hazards*, 103(1): 861-883, 2020.
19. Agarwal, P., **K. Hunt**, S. Srinivasan, and J. Zhuang, "Fire Safety Code Inspection and Compliance: A Game-theoretic Model between Fire Inspection Agencies and Building Owners," *Decision Analysis*, 17(3): 208-226, 2020.
20. Song, C., C. Guo, **K. Hunt**, and J. Zhuang, "An Analysis of Public Opinions Regarding Take-Away Food Safety: A 2015-2018 Case Study on Sina Weibo," *Foods*, 9(4): 511, 2020.

Published Book Chapters

1. **Hunt, K.** and J. Zhuang, "Blockchain for Disaster Management," In *Big Data and Blockchain for Service Operations Management*. Springer, 253-269, 2022.

Published Conference Proceedings

1. **Hunt, K.**, P. Agarwal, and J. Zhuang, "A Multi-algorithm Approach for Classifying Misinformed Twitter Data during Crisis Events," *2019 IISE Conference Proceedings*, 1-6, 2020.

Published Magazine Articles

1. **Hunt, K.**, P. Agarwal, R. Al Aziz, and J. Zhuang, "Fighting Fake News during Disasters," *OR/MS Today*, 47(1): 34-39, 2020.
2. **Hunt, K.**, P. Agarwal, and J. Zhuang, "Tracking Storms of Misinformation Spread amid Disasters," *ISE Magazine*, 51(9): 28-32, 2019.

Submitted Journal Articles

1. **Hunt, K.**, S. Wang, Z. Steever, C. Murray, J. Yuan, and M. Karwan, "Classifying and Contextualizing the Unknown: An Interpretable Algorithm for Open Set Recognition."
2. **Hunt, K.**, S. Guney, and R. John "Honesty, Deception, or Secrecy? Optimally Disclosing Defensive Posture."
3. Huang, H., **K. Hunt**, and M. Sohoni, "Applications of Machine Learning in Clinical Trial Planning and Operations."
4. Zhao, Y., **K. Hunt**, and J. Zhuang, "Perspectives on Arctic Security: An Analysis of Strategies, Presence, and Capabilities from Ten Arctic and Non-arctic Countries."

Working Papers / Research in Progress

1. “Information Search in Community-based Platforms: How Does Consensus Impact Information Demand and Adoption?” with L. Amo, Y. Zhang[^], and S. Smith.
2. “How do CISOs Balance Security and AI Innovation?” with R. Singh[^], P. Mulgund, and S. Smith.
3. “Analytics in Clinical Trial Operations Management” with H. Huang[^] and M. Sohoni.
4. “Reducing Noise in Cybersecurity Operations Centers: Configuration Optimization and Workload Allocation” with D. Sharma[^] and A. Shah.
5. “Relating Integer Programs: An Experimental Study on the State-of-the-Art” with T. Schroth[^] and C. Murray.
6. “Signaling Credibility in Anonymous Community-based Platforms” with R. Singh[^] and L. Amo.
7. “Multi-target Technology Deployment and Information Disclosure in the Face of a Strategic Threat” with Y. Tokel[^] and J. Zhuang.
8. “Decision Modeling for Arctic Security: Current State and Paths Forward” with I. Unson[^], T. Zan[^], and J. Zhuang.

GRANTS

Funded

1. “STTR Phase 2: Machine Learning Detection and Response for Space Force Ground Systems,” supported by the *U.S Air Force Research Lab*; 2024-2025; Hunt’s role: co-PI; with S. Lyu (PI) and S. Smith (co-PI); \$540,000.
2. “Assessing and Mitigating Risks in the Arctic (AMiRA): A Multi-Stakeholder Framework,” supported by the *U.S. Department of Homeland Security*; 2024-2025; Hunt’s role: co-PI; with J. Zhuang (PI); \$460,000.
3. “DDRIG in DRMS: Multi-target Technology Deployment and Information Disclosure in Attacker-defender Settings: Analyzing Game-theoretic Prescriptions and Human Decisions,” supported by the *U.S. National Science Foundation (NSF)* via the Decision, Risk, and Management Sciences program; 2022-2023; Hunt’s role: co-PI; with J. Zhuang (PI); \$15,325.

Submitted

1. “A Tool for Predicting Operational Risk in Clinical Trials,” submitted to the *National Institutes of Health*; Hunt’s role: PI at UB; with M. Zand (PI at University of Rochester), Jennifer Kraschnewski (PI at Penn State), M. Sohoni (co-PI at UB), T. Murphy (co-I at UB), and S. Sethi (co-I at UB); proposed budget: ~\$5,000,000.

RECENT RESEARCH TALKS

Invited University Seminars

1. “On the Disclosure of Defensive Posture: Adversarial Belief Formation, Target Selection Decisions, and Optimal Disclosure Policies,” Simon Business School, University of Rochester, March 2025.
2. “Managing Threats: Applications of OR/MS in Security and Defense,” School of Management, University at Buffalo, March 2023.

Conference Presentations

1. **Speaker**, “On the Disclosure of Defensive Posture: Adversarial Belief Formation and Target Selection Decisions,” 2025 Productions and Operations Management Society Annual Conference.
2. **Co-author**, “Signaling the Capability of Counterterrorism Technology,” 2024 INFORMS Security Conference.
3. **Speaker**, “On the Disclosure of Defensive Posture: Adversarial Belief Formation and Target Selection Decisions,” 2023 INFORMS Annual Meeting.
4. **Speaker**, “Technology Deployment and Information Disclosure in the Face of a Strategic Threat,” 2022 INFORMS Annual Meeting.
5. **Co-author**, “Rumor Propagation and Clarification on Social Media During Crisis Events,” 2022 INFORMS Annual Meeting.
6. **Speaker**, “Near-repeat Terrorism: Identifying and Analyzing the Spatiotemporal Attack Patterns of Major Terrorist Organizations,” 2022 INFORMS Advances in Decision Analysis Conference.
7. **Speaker**, “Models for Technology Adoption and Information Disclosure in Homeland Security,” 2022 INFORMS Advances in Decision Analysis Conference.
8. **Speaker**, “Managing Misinformation on Social Media during Disasters: Machine Learning and Game-theoretic Approaches,” 2022 INFORMS Computing Society Conference.

TEACHING EXPERIENCE AND EVALUATIONS

Instructor at UB (evaluations based on “overall instructor rating”)

*denotes core course in program

- **MGQ 608 – Statistical Analysis for Managers (MBA*)**
 - Fall 2025, Section 2, scheduled
 - Fall 2025, Section 1, scheduled
- **MGS 616 – Predictive Analytics (MS Business Analytics*, MS Information Systems*, MBA)**
 - Spring 2025, Online section, 49 students, 5.0/5.0

- Spring 2025, Section 2, 52 students, 4.7/5.0
- Spring 2025, Section 1, 53 students, 4.8/5.0
- Spring 2024, Online section, 65 students, 4.9/5.0
- Spring 2023, Section 2, 55 students, 4.8/5.0
- Spring 2023, Section 1, 55 students, 4.8/5.0
- Fall 2022, Section 2, 44 students, 4.9/5.0
- Fall 2022, Section 1, 57 students, 4.9/5.0

- **MGS 614 – Systems Analysis & Design** (*MS Information Systems**, *MBA*)
 - Summer 2023, Section 2, 53 students, 5.0/5.0
 - Summer 2023, Section 1, 49 students, 5.0/5.0
 - Spring 2023, Section 2, 55 students, 4.9/5.0
 - Spring 2023, Section 1, 43 students, 4.8/5.0

- **IE 320 – Engineering Economy** (*BS Industrial Engineering**)
 - Summer 2022, 27 students, 4.9/5.0

RECENT HONORS AND AWARDS

Seth Bonder Research Award , Institute for Operations Research and the Management Sciences (INFORMS)	2024
Graduate Research Fellowship , NSF (\$138,000)	2021-2023
SUNY GREAT Award , The State University of New York (SUNY)	2022
Graduate Student Researcher of the Year , UB Department of Industrial and Systems Engineering (ISE)	2022
Future Faculty Fellowship , Institute of Industrial and Systems Engineers (IISE)	2021-2022
Seth Bonder Scholarship for Applied Operations Research in Military and Security Applications , INFORMS	2021
Harold O. Wolf Achievement Award , UB School of Engineering and Applied Sciences (SEAS)	2021

UNIVERSITY SERVICE

Senator, University at Buffalo Faculty Senate UB	2025-present
Faculty Mentor, Undergraduate Shareholder Society UB School of Management	2024
Platform Party Member, Undergraduate Commencement UB School of Management	2023, 2024
Co-chair, Eastern Great Lakes Analytics Conference UB Department of Management Science and Systems (MSS)	2023

Committee Member

- PhD Qualification Exam Redesign, UB MSS 2025-present
- PhD Curriculum Redesign, UB MSS 2024-present
- Academic Integrity Hearing Board, UB 2024
- Assistant Professor Search (2x), UB MSS 2023-2024
- Clinical Assistant Professor Search, UB MSS 2023
- Undergraduate Grievance Pool, UB School of Management 2022-2023
- Chief Information Security Officer Search, UB 2022
- Infrastructure Development Strategic Planning, SEAS 2018-2019

Panelist

- Academic Job Panel, UB INFORMS 2024
- DEI Training Panel, SEAS 2021

Seminar Speaker

- “From Confusion to Clarity: How Academia Helped Uncover My Purpose and Passion,” UB ISE, 2023.
- “Predictive Analytics and Python: An Introduction,” UB School of Management, 2022.

EXTERNAL SERVICE

Conference Organizing Committee

- INFORMS Security Conference (Track Coordinator) 2024

Conference Session Chair

- INFORMS Security Conference 2024
- INFORMS Annual Meeting 2020, 2021, and 2022
- Conference on Risk Analysis, Decision Analysis and Security 2019

Award Committee Participation

- Chair, Bonder Scholarship Committee, INFORMS 2025
- Judge, Koopman Prize, Military and Security Society, INFORMS 2024
- Judge, General Track Best Poster Competition, INFORMS Security Conference 2024
- Judge, Student Track Best Poster Competition, INFORMS Security Conference 2024
- Co-chair, Best Paper Award Committee, Data Analytics and Information Systems Division (DAIS), IISE 2022-2023

Editorial Board Member

- *Decision Analysis* 2025-present

Ad-Hoc Reviewer – Journals: *Annals of Operations Research; Decision Analysis; Decision Support Systems; Disasters; European Journal of Operational Research; Expert Systems with Applications, Information Processing and Management; Journal of Humanitarian Logistics and Supply Chain Management; Military Operations Research; Naval Research Logistics; Operations Research; PLOS ONE; Production and Operations Management; Reliability Engineering and System Safety; Risk Analysis; Socio-Economic Planning Sciences; Technology in Society*

Ad-Hoc Reviewer – Conference Proceedings: GameSec; ICIS; ICWSM; IISE

Ad-Hoc Reviewer – Grant Proposals

- Funding sponsor: Penn State CTSI (an NIH-funded clinical and translational science hub)
Program title: Translational Pilot Studies Program
Year of review: 2025

Other Boards, Panels, and Committees

- Advisory Board Member, Military and Security Society, INFORMS 2025-present
- Board Member, DAIS, IISE 2022-2023
- Diversity, Equity, and Inclusion Fellow, Decision Analysis Society, INFORMS 2022
- Senior Project Review Panelist, Westhill High School, Syracuse, NY 2021-2022
- Board Member, Risk Policy and Law Specialty Group, SRA 2020-2022

STUDENT SUPERVISION

Supervised Research – PhD Students

^major advisor, *member of dissertation committee

1. Steven Wang^ (co-advised) – Management Science and Systems (in progress)
2. Hongpei Huang^ (co-advised) – Management Science and Systems (in progress)
3. Yuhui Zhang* – Management Science and Systems (in progress)
4. Raghav Singh* – Management Science and Systems (in progress)
5. Yusuf Tokel* – Industrial and Systems Engineering (in progress)
6. Ian Unson* – Industrial and Systems Engineering (in progress)
7. Sagarika Suresh* – Management Science and Systems (2024; Senior Quantitative Researcher at JP Morgan & Chase)

Supervised Research – MS Students

1. Collin Heeb – Cybersecurity (in progress)
2. Sumit Poojary – Management Information Systems (2023; Data Analyst at Hager)
3. Nirmal Chowdhary – Management Information Systems (2023; Data Consultant at Kaiser Permanente)
4. Ranjit Sreyus – Management Information Systems (2023)
5. Ashish Gangavaram – Management Information Systems (2023; Business Analyst at Honda)
6. Saif Chowdhury – Operations Research (2023; Supply Chain Analyst at Arkieva)
7. Aditya Narayanan – Operations Research (2021; Ph.D. student at UB)

Supervised Research – BS Students

1. Heather Duell – Industrial Engineering (2024)
2. Brynn Amatulli – Industrial Engineering (2024)
3. Steven Wang – Computer Science and Mathematics (2024; continued as a PhD student under my advisement)

Supervised Industry Projects (in Collaboration with [HiddenLayer](#)) – MS Students

1. Mayank Mishra – Business Analytics (2023)
2. Gregory Gray – Business Analytics (2023)
3. Simon Wibler – Business Analytics (2023)
4. Akriti Chaturvedi – Business Analytics (2023; Data Analyst at Royal Caribbean)
5. Dharani Raju – Business Analytics (2023; Data Engineering at Modak)

RECENT MEDIA MENTIONS

1. “Encrypted messaging for military operations poses critical risks,” [UBNow](#) and [UB School of Management Newsroom](#), April 2025.
2. “The dangers of disclosing defensive strategies,” [MSN.com](#), [Phys.org](#), [UBNow](#), and [UB School of Management Newsroom](#), March 2025.
3. “Securing the Arctic: UB School of Management research receives multi-year grant from Department of Homeland Security,” [UBNow](#) and [UB School of Management Newsroom](#), February 2024.
4. “Analytics/AI conference brings new perspectives to businesses, higher education,” [UBNow](#), December 2023.
5. “Applying game theory on the front lines,” [TechXplore](#), [UBNow](#), and [UB School of Management News Room](#), October 2023.

PROFESSIONAL MEMBERSHIPS

- | | |
|---|--------------|
| ▪ Production and Operations Management Society (POMS) | 2025-present |
| ▪ Association for Information Systems (AIS) | 2024-present |
| ▪ INFORMS Information Systems Society | 2024-present |
| ▪ INFORMS Decision Analysis Society | 2021-present |
| ▪ INFORMS | 2018-present |