Benjamin M. Ampel

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ACADEMIC EMPLOYMENT

Duration	Title	Organization
2024-Present	Assistant Professor of Computer Information Systems	Georgia State University
2021-2024	Adjunct Lecturer (Limited Term)	University of Arizona
2018-2024	Research Associate, Artificial Intelligence Lab	University of Arizona
2018-2021	NSF CyberCorps Scholarship-for-Service Fellow	University of Arizona

*Note: NSF = National Science Foundation

EDUCATION

Ph.D., Management Information Systems (MIS), University of Arizona, 2024
- **Dissertation Title**: Securing Cyberspace: AI-Enabled Cyber-Adversary Defense
    - Awarded the **ACM SIGMIS Doctoral Dissertation Award** at ICIS 2024
- **Committee Members**: Dr. Hsinchun Chen (Chair), Dr. Sue Brown, Dr. Jay F. Nunamaker Jr.
- **Minor**: Cognitive Science, advised by Dr. Mary Peterson

M.S., Management Information Systems (MIS), University of Arizona, 2019

B.S.B.A., Management Information Systems (MIS), University of Arizona, 2017

RESEARCH PUBLICATIONS

Research Interests & Methods: Cybersecurity, Hacker Communities, Phishing Content, Computational Design Science, Large Language Models, Deep Learning, AI
- ***Google Scholar Metrics:*** Citations: 400+; h-index: 9; i10-index: 9

Journal Publications (5 total)
1. **B. Ampel**, C. Yang, J. Hu, H. Chen, "Large Language Models for Conducting Advanced Text Analytics Information Systems Research," *ACM Transactions on Management Information Systems (TMIS)*, 16:1, 1-27, 2025.
2. **B. Ampel**, S. Samtani, H. Zhu, and H. Chen, "Creating Proactive Cyber Threat Intelligence with Hacker Exploit Labels: A Deep Transfer Learning Approach," *Management Information Systems Quarterly (MISQ)*, 48:1, 137-166, 2024.
3. **B. Ampel**, S. Samtani, H. Zhu, H. Chen, and J. F. Nunamaker, "Improving Threat Mitigation Through a Cybersecurity Risk Management Framework: A Computational Design Science Approach," *Journal of Management Information Systems (JMIS)*, 41:1, 236-265, 2024.
4. Y. Gao, **B. Ampel**, S. Samtani, "Evading Anti-Phishing Models: A Field Note Documenting an Experience in the Machine Learning Security Evasion Competition 2022," *ACM Digital Threats: Research and Practice (DTRAP)*, 5:1, Article 7, 2024.
5. **B. Ampel** and S. Ullman, "Why Following Friends Can Hurt You: A Replication Study," *AIS Transactions on Replication Research (TRR)*, 9:1, Article 6, 2023.

Journal Manuscripts Under Review (4 total)

1. **B. Ampel**, S. Samtani, H. Chen, "Automatically Detecting Voice Phishing: A Large Audio Model Approach," *Under Third Round Review at Management Information Systems Quarterly (MISQ).*
2. **B. Ampel**, S. Samtani, and H. Chen, "Adversarially Robust Phishing Generation and Detection: A Large Language Model Approach," *Under Second Round Review at Management Information Systems Quarterly (MISQ).*
3. **B. Ampel**, "A Computational Design Framework for Targeted Disruption of Hacker Communities," *Under Second Round Review at Information Systems Frontiers (ISF).*
4. **B. Ampel**, "How AI is Outsmarting Spam Filters: The Risks of Adversarially Enhanced AI-Generated Emails," *Under First Round Review at ACM Transactions on Management Information Systems (TMIS).*

Journal Manuscripts in Progress (8 total)
1. **B. Ampel**, S. Samtani, H. Chen, "Automated Hacker Threat Reporting: A Knowledge Enhanced Summarization Approach," *Targeted at Management Information Systems Quarterly (MISQ).*
2. **B. Ampel**, "An Agentic Framework for Cyber Threat Intelligence: A Computational Design Science Approach" *Targeted at Journal of Management Information Systems (JMIS).*
3. B. Lazarine, **B. Ampel**, R. Venkataraman, and S. Samtani, "Managing Vulnerabilities Across International Artificial Intelligence Sources: A Large Language Model Approach," *Targeted at Management Information Systems Quarterly (MISQ).*
4. J. Hu, R. Ebrahimi, W. Li, **B. Ampel**, and H. Chen, "Securing Artificial Intelligence-enabled Chatbots Against Prompt Attacks: A Multi-Task Inverse Reinforcement Learning Approach," *Targeted at Management Information Systems Quarterly (MISQ).*
5. C. Yang, R. Ebrahimi, W. Li, **B. Ampel**, and H. Chen, "Identifying Geopolitical Risks for the Semiconductor Industry: A Graph Transformer-based Approach" *Targeted at Management Information Systems Quarterly (MISQ).*
6. R. Reyes, S. Ullman, S. Samtani, **B. Ampel**, and H. Chen, "Identifying Vulnerability Persistence in Open-Source Containers: A Temporal Multi-View Learning Approach" *Targeted at Journal of Management Information Systems (JMIS).*
7. Y. Gao, **B. Ampel**, D. Zhou, and S. Samtani, "Generating Adversarial Phishing Websites to Evade Machine Learning-based Anti-Phishing Detectors: A Reinforcement Learning Approach" *Targeted at Management Information Systems Quarterly (MISQ).*
8. C. Dacosta, **B. Ampel**, M. Hashim, and H. Chen, "Identifying Protected Health Information in Hacker Communities: A Multi-Task Relation Learning Approach" *Targeted at Management Information Systems Quarterly (MISQ).*

Refereed Conference Proceedings (14 total, * Indicates I was Lead Presenter)
1. Y. Gao, **B. Ampel**, and S. Samtani, "Examining the Robustness of Machine Learning-based Phishing Website Detection: Action-Masked Reinforcement Learning for Automated Red Teaming," IEEE Security and Privacy Workshops (SPW), San Francisco, California, May 2025.
2. S. Ullman, **B. Ampel**, S. Samtani, S. Yang, and H. Chen, "The 4th Workshop on Artificial Intelligence-enabled Cybersecurity Analytics," Proceedings of 30th ACM SIGKDD Conference on Knowledge Discovery and Data Mining, Barcelona, Spain, August 26th, 2024.
3. **B. Ampel***, T. Vahedi, S. Samtani, and H. Chen, "Mapping Exploit Code on Paste Sites to the MITRE ATT&CK Framework: A Multi-label Transformer Approach," Proceedings of 2023 IEEE International Conference on Intelligence and Security Informatics (ISI), North Carolina, October 2023 ***(Recipient of Best Paper Award).***
4. **B. Ampel***, K. Otto, S. Samtani, H. Zhu, and H. Chen, "Disrupting Ransomware Actors on the Bitcoin Blockchain: A Graph Embedding Approach," Proceedings of 2023 IEEE International Conference on Intelligence and Security Informatics (ISI), North Carolina, October 2023.
5. **B. Ampel***, Y. Gao, J. Hu, S. Samtani, and H. Chen, "Benchmarking the Robustness of Phishing Email Detection Systems," Proceedings of the Americas' Conference on Information Systems (AMCIS), Panama, August 2023.

6. **B. Ampel***, "The Effect of Consensus Algorithm on Ethereum Price and Volume," Proceedings of the Americas' Conference on Information Systems (AMCIS), Panama, August 2023.
7. C. Marx, **B. Ampel**, B. Lazarine, "The Influence of AI Agent Recommendations on Escalation of Commitment," Proceedings on the International Conference on Information Systems (ICIS), Austin, Texas, December 2021.
8. T. Vahedi, **B. Ampel**, S. Samtani, and H. Chen, "Identifying and Categorizing Malicious Content on Paste Sites: A Neural Topic Modeling Approach," Proceedings of 2021 IEEE International Conference on Intelligence and Security Informatics (ISI), San Antonio, Texas, November 2021.
9. K. Otto, **B. Ampel**, S. Samtani, H. Zhu, and H. Chen, "Exploring the Evolution of Exploit-Sharing Hackers: An Unsupervised Graph Embedding Approach," Proceedings of 2021 IEEE International Conference on Intelligence and Security Informatics (ISI), San Antonio, Texas, November 2021.
10. **B. Ampel*** and H. Chen, "Distilling Contextual Embeddings into A Static Word Embedding for Improving Hacker Forum Analytics," Proceedings of 2021 IEEE International Conference on Intelligence and Security Informatics (ISI), San Antonio, Texas, November 2021.
11. **B. Ampel***, S. Samtani, H. Zhu, S. Ullman, and H. Chen, "Labeling Hacker Exploits for Proactive Cyber Threat Intelligence: A Deep Transfer Learning Approach," Proceedings of 2020 IEEE International Conference on Intelligence and Security Informatics (ISI), Washington, D.C., November 2020 *(Recipient of Best Paper Award)*.
12. S. Ullman, S. Samtani, B. Lazarine, H. Zhu, **B. Ampel**, M. Patton, and H. Chen, "Smart Vulnerability Assessment for Scientific Cyberinfrastructure: An Unsupervised Graph Embedding Approach," Proceedings of 2020 IEEE International Conference on Intelligence and Security Informatics (ISI), Washington, D.C., November 2020.
13. B. Lazarine, S. Samtani, M. Patton, H. Zhu, S. Ullman, **B. Ampel**, and H. Chen, "Identifying Vulnerable GitHub Repositories and Users in Scientific Cyberinfrastructure: An Unsupervised Graph Embedding Approach," Proceedings of 2020 IEEE International Conference on Intelligence and Security Informatics (ISI), Washington, D.C., November 2020.
14. **B. Ampel**, M. Patton and H. Chen, "Performance Modeling of Hyperledger Sawtooth Blockchain," Proceedings of 2019 IEEE International Conference on Intelligence and Security Informatics (ISI), Shenzhen, China, July 2019.

Refereed Workshop Papers (No Proceedings, 2 total, * Indicates I was Lead Presenter)
1. Y. Gao, S. Samtani, H. Zhu, **B. Ampel**, and Y. Chai, "Generating Adversarial Phishing Websites to Evade Machine Learning-based Anti-Phishing Detectors: A Reinforcement Learning Approach," INFORMS Workshop on Data Science (WDS), Phoenix, Arizona, October 2023.
2. **B. Ampel***, S. Samtani, S. Ullman, and H. Chen, "Linking Common Vulnerabilities and Exposures to the MITRE ATT&CK Framework: A Self-Distillation Approach," ACM KDD Workshop on AI-enabled Cybersecurity Analytics, Virtual Event, August 2021.

GRANT EXPERIENCE
1. **Year**: 2024. **Funding Source**: TSMC. **Grant Title**: "AI4BI Academic Program" **Funding Amount**: $80,000. **Role**: Co-PI. **Duration**: 2024-2027.
2. **Year:** 2024. **Funding Source:** NSF. **Grant Title:** "Cybersecurity Scholarship-for-Service Renewal at The University of Arizona: The AZSecure AI4Cyber SFS Program" **Funding Amount:** $3M. **Role:** Lead Grant Writer. **Duration**: 2024-2028.

TEACHING EXPERIENCE

Role	Course	Method	Semester	# Students	School	TE Score
Lecturer	CIS 3620: Career Pathways	Online	Summer 2025	1	GSU	-
Lecturer	CIS 8684: Cyber Threat Intelligence	In Person	Spring 2025	30	GSU	4.91/5
Lecturer	CIS 4680: Intro to Security	In Person	Spring 2025	40	GSU	4.75/5
Lecturer	CIS 8080: IS Security and Privacy	In Person	Fall 2024	35	GSU	4.9/5
Lecturer	MIS 562: Cyber Threat Intelligence	Online	Fall 2023	24	UArizona	4.6/5
GTA	MIS 611D: Topics in Data Mining	In Person	Spring 2023	9	UArizona	-
GTA	MIS 464: Data Analytics	In Person	Spring 2023	39	UArizona	-
Lecturer	MIS 562: Cyber Threat Intelligence	Online	Fall 2022	40	UArizona	4.7/5

GTA	MIS 561: Data Visualization	Online	Summer 2022	33	UArizona	-
Lecturer	MIS 562: Cyber Threat Intelligence	Online	Fall 2021	13	UArizona	4.5/5
Lecturer	MIS 562: Cyber Threat Intelligence	Online	Summer 2021	30	UArizona	4.0/5

Note: GSU = Georgia State University; GTA = Graduate Teaching Assistant; IS = Information Systems; TE = Teaching Evaluation

PROFESSIONAL SERVICE ACTIVITIES

Editorial Roles (2 Unique Roles)
- **Journals**
  - **Associate Editor**, ACM Digital Threats: Research and Practice (DTRAP), 2025 – Present.
- **Conferences**
  - **Associate Editor**, International Conference on Information Systems (ICIS) Track on Digital Innovation and Entrepreneurship. 2025.

Conference & Workshop Leadership (3 Unique Leadership Positions)
1. **Co-Chair**, European Conference on Information Systems (ECIS) Ancillary Meetings, 2025.
2. **Co-Chair**, Hawaii International Conference on System Sciences (HICSS) Junior Faculty Consortium, 2025-2026.
3. **Co-Chair**, Workshop on Artificial Intelligence-enabled Cybersecurity Analytics at KDD (AI4Cyber-KDD), 2024.

Ad-hoc Reviewer of Journal Papers (11 Unique Journals)
Information Systems Journal (ISJ), 2025; Management Information Systems Quarterly (MISQ), 2025; International Journal of Information Management, 2025; Journal of Management Information Systems (JMIS), 2024; Information Processing and Management, 2024; Computers & Security, 2023-2024; Deviant Behavior (UDBH), 2023-2024; ACM Digital Threats: Research and Practice (DTRAP), 2022-2023; AIS Transactions on Replication Research (TRR), 2022-2025; IEEE Transactions on Dependable and Secure Computing (TDSC), 2021; ACM Transactions on Management Information Systems (TMIS), 2019-2024.

Conference & Workshop Program Committees (7 Unique Conference Program Committees)
INFORMS Workshop on Data Science (WDS), 2025; Summer Workshop on AI for Business (SWAIB), 2025; IEEE International Conference on Intelligence and Security Informatics (ISI), 2025; Workshop on Information Technologies and Systems (WITS), 2024; ACM Conference on Computer and Communications Security (CCS) AISec Workshop 2021-2024; ICDM Data Mining for Cybersecurity, 2021; Workshop on Artificial Intelligence-enabled Cybersecurity Analytics at KDD (AI4Cyber-KDD), 2021-2023.

Ad-hoc Reviewer of Refereed Conference Proceedings & Workshops (10 Unique Conferences)
International Conference on Wirtschaftsinformatik (WI), 2025; Americas' Conference on Information Systems (AMCIS), 2025; European Conference on Information Systems (ECIS), 2025; Workshop on Information Security and Privacy (WISP), 2024; INFORMS Workshop on Data Science (WDS), 2022; Hawaii International Conference on System Sciences (HICSS), 2021-2025; IEEE Deep Learning and Security Workshop (DLS), 2020; Pacific Asia Conference on Information Systems (PACIS), 2020-2024; International Conference on Information Systems (ICIS), 2020-2025; ICDM Workshop on Deep Learning for Cyber Threat Intelligence (DL-CTI), 2020.

Ad-hoc Academic Mentor (7 Ph.D. Students)
Ben Lazarine (Indiana University, 2025 - Present), Raul Reyes (University of Arizona, 2024 - Present), Sheng-Ya "Sandra" Chiu (University of Arizona, 2024 - Present), Raina Zhang (Indiana University, 2024 - Present), James Hu (University of Arizona, 2023 - Present), Chi-Heng "Henry" Yang (University of Arizona, 2023 - Present), Yang Gao (Indiana University, 2022 – Present).

Invited Talks and External Presentations (6 Total)
1. **Event Title:** AI-Enabled Cybersecurity: Best Practices and Emerging Trends Workshop at HICSS-58. **Presentation Title:** Foundation Models for Cybersecurity Applications. January 7, 2025. Hawaii.
2. **Event Title:** MIS 50th Academic Conference at The University of Arizona. **Presentation Title:** How Has Generative AI Affected Education, Research, And Practice? March 22, 2024. Tucson, Arizona.

3. **Event Title:** AI in Cybersecurity – Machine Learning / Deep Learning Data Analytics at HICSS-57. **Presentation Title:** Large Language Models for Advanced Text Analytics. January 3, 2024. Hawaii.
4. **Event Title:** Fall 2023 AI Bootcamp. **Presentation Title:** LLM Overview & Advanced Text Analytics. October 12, 2023. Virtual.
5. **Event Title:** International Conference on Secure Knowledge Management (SKM). **Presentation Title:** Deep Learning for The Detection of Vishing Calls. September 22, 2023. Virtual.
6. **Event Title:** AI in Cybersecurity – Machine Learning / Deep Learning Data Analytics at HICSS-56. **Presentation Title:** Analytics and Visualizations/UI in AI for Cybersecurity. January 3, 2023. Hawaii.

HONORS & AWARDS

- Winner, ACM SIGMIS Doctoral Dissertation Competition (2024).
- Best Paper Award. IEEE Intelligence and Security Informatics (ISI) (2023).
- Doctoral Consortium, International Conference on Information Systems (ICIS) (2023).
- Doctoral Consortium, Americas Conference on Information Systems (AMCIS) (2023).
- Paul S. and Shirley Goodman Scholarship (2023).
- Samtani-Garcia MIS PhD Commitment Scholarship (2022).
- James F. LaSalle Teaching Excellence Award (2022).
- Best Paper Award. IEEE Intelligence and Security Informatics (ISI) (2020).
- Nunamaker-Chen MIS Doctoral Scholarship Recipient (2020).
- National Science Foundation CyberCorps: Scholarship for Service Fellow (2018-2021).
- UArizona MIS Undergraduate Outstanding Senior (2017).

PUBLIC ENGAGEMENT AND MEDIA COVERAGE

- "Benjamin Ampel Receives ACM SIGMIS Doctoral Dissertation Award" Georgia State University, January 28, 2025.
- "More Older Americans Being Scammed; Is Technology a Factor?" The National Desk, November 19, 2024.