

Yang Gao

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Last CV Update: Dec 23, 2024

ACADEMIC EMPLOYMENT AND POSITIONS

Ph.D. Student	Operations and Decision Technologies, Kelley School of Business	Indiana University	August 2022 - May 2027 (Expected)
Research Associate	Kelley's Data Science and Artificial Intelligence Lab (DSAIL)	Indiana University	April 2023 - May 2027 (Expected)

EDUCATION

Doctor of Philosophy (Ph.D.)	Major: Information Systems	Indiana University	August 2022 - May 2027 (Expected)
Master of Science (M.S.)	Major: Business Analytics	Fordham University	August 2017 - February 2019
Bachelor of Management (B.Mgt)	Major: Management Science	Fudan University	September 2013 - June 2017

RESEARCH INTERESTS

- Applications:**
Cybersecurity - Phishing Websites Detectors Evasion and Robustness
AI for Business Intelligence in Semiconductor Industry
- Methods:**
Deep Reinforcement Learning, Adversarial Learning, Large Language Models

JOURNAL PUBLICATIONS

- Yang Gao**, Benjamin M. Ampel, Sagar Samtani, "Evading Anti-Phishing Models: A Field Note Documenting an Experience in the Machine Learning Security Evasion Competition 2022", *DTRAP Special Issue Applied Machine Learning for Information Security*

WORK-IN-PROGRESS JOURNAL PAPERS

- Yang Gao** and Sagar Samtani "Automated Adversarial Emulation to Examine the Robustness of Machine Learning-Based Phishing Website Detectors: A Reinforcement Learning Approach"

CONFERENCE PROCEEDINGS

- Yang Gao**, Sagar Samtani, and Ankit Shih, "Improving the Adversarial Robustness of Machine Learning-based Phishing Website Detectors: An Autoencoder-based Auxiliary Approach", Just accepted by the 58th Hawaii International Conference on System Sciences (HICSS-58). Big Island, Hawaii. January 2025.
- Benjamin M. Ampel, **Yang Gao**, James Hu, Sagar Samtani, Hsinchun Chen, "Benchmarking the Robustness of Phishing Email Detection Systems", *Americas Conference on Information Systems (AMCIS)*, 2023

REFEREED WORKSHOP PAPERS (No Proceedings)

- Yang Gao**, Sagar Samtani, Hongyi Zhu, Benjamin M. Ampel and Yidong Chai "Generating Adversarial Phishing Websites to Evade Machine Learning-based Anti-Phishing Detectors: A Reinforcement Learning Approach" *INFORMS 7th Workshop on Data Science*, 2023

2. Yilu Zhou, Hao Sun, **Yang Gao**, "Protecting Children from Inappropriate Mobile Apps: A Text and Image Deep Learning Approach", *INFORMS 2nd Workshop on Data Science, 2018*

INVITED TALKS

1. **Talk Title:** Automated Adversary Emulation to Examine the Robustness of Machine Learning-based Phishing Website Detectors: A Reinforcement Learning Approach. **Event Title:** Digital Unleashed: Bridging Research and Practice on AI, Cybersecurity, and Digital Transformation, Institute for Digital Enterprise, Indiana University. April 19, 2024.

PROFESSIONAL SERVICE

1. Website Editor, Journal of Management Information Systems (JMIS), September 2023 - Present
2. Website Editor, Kelley's Data Science and Artificial Intelligence Lab (DSAIL), September 2023 – Present
3. Website Editor, Reviewer and Volunteer, The Conference on Applied Machine Learning in Information Security (CAMLIS), June 2023 – November 2024
4. Reviewer, The AAAI-25 Workshop on Artificial Intelligence for Cyber Security (AICS), 2025. Philadelphia, Pennsylvania.
5. Reviewer, The 34th Workshop on Information Technologies and Systems (WITS), 2024. Bangkok, Thailand.
6. Reviewer, The Pacific Asia Conference on Information Systems (PACIS), 2024. Ho Chi Minh City, Vietnam.
7. Program Committee and Website Editor, The 4th Workshop on Artificial Intelligence-Enabled Cybersecurity Analytics, March - August 2024
8. Website Editor, The 3rd Workshop on Artificial Intelligence-Enabled Cybersecurity Analytics, March - August 2023
9. Reviewer, The 7th INFORMS Workshop on Data Science (WDS), 2023. Phoenix, Arizona.
10. Volunteer, Conference on Information Systems and Technology (CIST), 2022. Indianapolis, Indiana.
11. Volunteer, The 6th INFORMS Workshop on Data Science (WDS), 2022. Indianapolis, Indiana.

TEACHING EXPERIENCE

Role	Course	Level	Method	# of Sections	# of Students	Institution	Semester
GTA	S364 Business Data Programming	Undergraduate	In-Person	3	134	Indiana U.	Fall 2023
GTA	Web Analytics	Master	In-Person	3	105	Fordham U.	Fall 2018
GTA	Machine Learning and Text Mining	PhD	In-Person	1	6	Fordham U.	Spring 2019

AWARDS

1. 2nd Place, Ph.D. Student Presentation Award, Amount: \$1.75k. Institute for Digital Enterprise, Indiana University. April 19, 2024.
1. Data Science Workshop Best Reviewer Award, 2023 INFORMS 7th Workshop on Data Science, Phoenix, AZ

PROFESSIONAL AFFILIATIONS AND SOCIETIES

1. Association for Information Systems (AIS), Member
2. Association for Computing Machinery (ACM), Member
3. Institute of Electrical and Electronics Engineers (IEEE), Member
4. Institute for Operations Research and the Management Sciences (INFORMS), Member

RELEVANT TECHNOLOGY SKILLS

1. **Databases:** MySQL, PostgreSQL, Neo4j AuraDB
2. **Programming Languages:** Python, C, PHP, SQL, Cypher
3. **Visualization tools:** Tableau, Gephi, Neo4j
4. **Data mining tools:** SPSS Modeler, Stata, WEKA, scikit-learn
5. **Major deep learning toolkits:** PyTorch, Keras, Tensorflow, Gymnasium, Ray RLlib
6. **Web development:** Heroku, Squarespace, GoDaddy

WORK EXPERIENCE

Ehomie New York Inc.

Texas Associate Manager & Business Analyst

**February 2019 –
February 2022**