

# JEONGKEUN SHIN

✉ jeongkes@andrew.cmu.edu

🏠 jeongkeunshin.github.io

## 🏠 EDUCATION

- 🎓 **Doctor of Philosophy (Ph.D.) in Societal Computing** Sep 2024 - Now  
**Master of Science (M.S.) in Societal Computing** Sep 2024 - Now  
Center for Computational Analysis of Social and Organizational Systems (CASOS)  
Software and Societal Systems Department, School of Computer Science, Carnegie Mellon University  
Advisor: [Professor Kathleen M. Carley](#) Pittsburgh, PA
- 🎓 **Doctor of Philosophy (Ph.D.) in Electrical and Computer Engineering** Jan 2022 - Aug 2024  
Center for Computational Analysis of Social and Organizational Systems (CASOS)  
Department of Electrical and Computer Engineering, Carnegie Institute of Technology, Carnegie Mellon University  
Advisor: [Professor Kathleen M. Carley](#) Pittsburgh, PA  
Completed Coursework Requirements / Transferred to Software and Societal Systems Department
- 🎓 **Master of Science (M.S.) in Electrical and Computer Engineering** Jan 2020 - May 2021  
CyLab Biometrics Center  
Department of Electrical and Computer Engineering, Carnegie Institute of Technology, Carnegie Mellon University  
Advisor: [Professor Marios Savvides](#) Pittsburgh, PA
- 🎓 **Bachelor of Science in Engineering (B.S.E.) in Computer Science** Class of 2019  
Crowd+Machine (CroMa) Lab & Illinois Geometry Lab  
College of Engineering, University of Michigan  
Advisor: [Professor Walter S. Lasecki](#) & [Professor Xin Zhang @ UIUC](#) Ann Arbor, MI

## 📖 PUBLICATIONS

### Conference Proceedings

- [C.6] Shin, J., Dobson, G. B., Carley, L. R., & Carley, K. M. (2024, December). *Design, Modeling and Simulation of Cybercriminal Personality-based Cyberattack Campaigns*. In *2024 Winter Simulation Conference (WSC)* Forthcoming. IEEE.
- [C.5] Shin, J., Carley, K. M., & Carley, L. R. (2024, May). *Simulation-Based Study on False Alarms in Intrusion Detection Systems for Organizations Facing Dual Phishing and DoS Attacks*. In *2024 Annual Modeling and Simulation Conference (ANNSIM)* Forthcoming. IEEE.  
🏆 **Best Paper Runner Up Award**
- [C.4] Shin, J., Carley, K. M., & Carley, L. R. (2023, September). *Integrating Human Factors into Agent-Based Simulation for Dynamic Phishing Susceptibility*. In *International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation* (pp. 169-178). Cham: Springer Nature Switzerland.
- [C.3] Shin, J., Carley, L. R., Dobson, G. B., & Carley, K. M. (2023, December). *Beyond Accuracy: Cybersecurity Resilience Evaluation of Intrusion Detection System against DoS Attacks using Agent-based Simulation*. In *2023 Winter Simulation Conference (WSC)* (pp. 118-129). IEEE.
- [C.2] Shin, J., Carley, L. R., Dobson, G. B., & Carley, K. M. (2023, May). *Modeling and simulation of the human firewall against phishing attacks in small and medium-sized businesses*. In *2023 Annual Modeling and Simulation Conference (ANNSIM)* (pp. 369-380). IEEE.
- [C.1] Shin, J., Dobson, G. B., Carley, K. M., & Carley, L. R. (2022, September). *OSIRIS: organization simulation in response to intrusion strategies*. In *International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation* (pp. 134-143). Cham: Springer International Publishing.

### Posters / Extended Abstracts

- [P.3] Shin, J., Changal, T., Carley, K. M., & Carley, L. R. (2024, December). *Impact of Operating System Updates on Cybercriminal Access Duration: A Simulation-Based Study*. In *2024 Winter Simulation Conference (WSC) Poster Session*.
- [P.2] Shin, J., Dobson, G. B., Carley, K. M., & Carley, L. R. (2022, December). *Leveraging OSIRIS to simulate real-world ransomware attacks on organization*. In *2022 Winter Simulation Conference (WSC) Poster Session*.
- [P.1] Shin, J., Xu, Y., Zhang, C., Zhang, X., & Li, J. (2017, May). *Finding integers from group orbits*. Illinois Geometry Lab (IGL) Spring 2017 Open House

### Technical Reports

- [T.1] Shin, J., Dobson, G. B., Carley, L. R., & Carley, K. M. (2023, December). *Revelation of System and Human Vulnerabilities Across MITRE ATT&CK Techniques with Insights from ChatGPT*. In CASOS Technical Report

## 🏆 AWARDS & ACHIEVEMENTS

2024 Annual Modeling and Simulation Conference (ANNSIM) **Best Paper Runner Up Award**





## MENTORING

**June 2024 - July 2024**      Tanav Chagal · Summer Internship · Troy High School

**May 2023 - August 2023**      Devashish Ubale · MITS Program Summer Internship · Master of Information Technology Strategy (MITS), Carnegie Mellon University · First Position: FPrime AI

## ACADEMIC SERVICES

### Peer Review

-  The Journal of Artificial Societies and Social Simulation (JASSS) [2024]
-  2024 Annual IDEaS Conference: Disinformation, Hate Speech, and Extremism Online
-  2024 International Conference on Social Computing, Behavioral-Cultural Modeling and Prediction and Behavior Representation in Modeling and Simulation (SBP-BRiMS)
-  2024 Winter Simulation Conference (WSC) Agent-Based Simulation Track