PRINKLE SHARMA

Information Security and Digital Forensics
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Prinkle Sharma

EDUCATION

2020	**Ph.D.** (Electrical and Computer Engineering), UMass Dartmouth. Dissertation: Misbehavior Detection in Vehicular Networks with Machine Learning. Doctoral Mentor (Dr. Hong Liu, Ph.D.).
2016	**MS**. UMass, Dartmouth, Department of Computer and Information Science.
2012	**B.Tech.** (Information Technology), Punjab Technical University.

EDUCATIONAL EMPLOYMENT

2020 – present	**Assistant Professor**, Information Security and Digital Forensics, University at Albany, State University of New York.

ADDITIONAL EMPLOYMENT

2019 (Summer)	**Machine Learning Intern**, Amadeus North America, Waltham, Massachusetts Employer Travel Cost Prediction Tool Using Machine Learning.
2018 (Summer)	**Automotive Research Intern**, Onboard Security Inc., Wilmington, Massachusetts, Integrating Plausibility Checks in V2V communication to detect misbehavior using Machine Learning.
2015 - 2020	**Research and Teaching Assistant**, Internet of Things Lab at Electrical and Computer Engineering. UMass Dartmouth.

HONORS AND AWARDS

- Junior Faculty Research Award, Massry School of Business, SUNY - University at Albany, 2025
- Minerva Center Innovation Funding for Research & Creative Endeavors, SUNY – University at Albany, 2024.
- NSF-SAGES Seed Grant through the UAlbany Women in Science and Health (WISH), SUNY – University at Albany, 2024.
- Faculty Research Award Program (FRAP-B), SUNY - University at Albany, 2024

- Dean W. Warren Haynes Memorial Award for Outstanding Graduate Teaching, Massry School of Business, SUNY – University, 2024.
- John S. Levato Endowed Undergraduate Teaching Award, Massry School of Business, SUNY – University at Albany, 2023
- School of Business Service Award – Faculty, Massry School of Business, SUNY – University at Albany, 2023
- Elite-Quality Journal Publication Research Award, Massry School of Business, SUNY – University at Albany, 2022
- Faculty Research Award Program (FRAP-B), SUNY - University at Albany, 2021

PUBLISHED MANUSCRIPT (Peer Reviewed Articles)

- Sharma, Prinkle, et al. "Securing wireless communications of connected vehicles with artificial intelligence." *2017 IEEE international symposium on technologies for homeland security (HST)*. IEEE, 2017.
- So, Steven, Prinkle Sharma, and Jonathan Petit. "Integrating plausibility checks and machine learning for misbehavior detection in VANET." *2018 17th IEEE International Conference on Machine Learning and Applications (ICMLA)*. IEEE, 2018.
- Sharma, Prinkle, David Austin, and Hong Liu. "Attacks on machine learning: Adversarial examples in connected and autonomous vehicles." *2019 IEEE International Symposium on Technologies for Homeland Security (HST)*. IEEE, 2019.
- Sharma, Prinkle, Umesh Siddanagaiah, and Gökhan Kul. "Towards an ai-based after-collision forensic analysis protocol for autonomous vehicles. In 2020 *IEEE Security and Privacy Workshops* (SPW) (pp. 240–243)." *IEEE. https://doi. org/10.1109/SPW50608* (2020).
- Sharma, P. & Gillanders*, J (2022). Cybersecurity and Forensics in Connected Autonomous Vehicles: A Review of the State-of-the-Art, *IEEE Access*, *Vol* 10, pp. 108979-108996, doi: 10.1109/ACCESS.2022.3213843.
- Sharma, P. & Liu, H (2021). A Machine Learning-Based Data-Centric Misbehavior Detection Model for Internet of Vehicles, *IEEE Internet of Things Journal*. *Vol*. 8, no. 6, pp. 4991-4999, 15 March15, 2021, doi: 10.1109/JIOT.2020.3035035.
- Sharma, Prinkle, and Sanjay Goel, eds. *Practical Guide On Security And Privacy In Cyber-physical Systems, A: Foundations, Applications And Limitations*. Vol. 3. World Scientific, 2023.
- Ramsamooj, Devaj., Prinkle Sharma, and Hong Liu. "GenVRAM: Dataset Generator for Vehicle to Roadside Attacks and Misbehavior." *IEEE Access* (2024).

- Leonardo, Cedric., Prinkle Sharma, and Hong Liu. "Security Modeling of Wireless Sensor Networks (WSN) for Bridge Structural Health Monitoring (SHM) to Maximize System's Lifetime." *Wiley Encyclopedia of Electrical and Electronics Engineering* (2024).
- R. Sultana, J. Grover, M. Tripathi and P. Sharma, "LA-DETECTS: Local and Adaptive DataCentric Misbehavior Detection Framework for Vehicular Technology Security," in *IEEE Open Journal of Vehicular Technology*, vol. 6, pp. 145-169, 2025, doi: 10.1109/OJVT.2024.3513152
- Rai, R., Grover, J., Sharma, P. *et al.* Securing the CAN bus using deep learning for intrusion detection in vehicles. *Nature - Sci Rep* **15**, 13820 (2025). https://doi.org/10.1038/s41598-025-98433-x

MANUSCRIPT UNDER REVIEW (Peer Reviewed Articles)

- Sharma, P. & Grover., J. "AI-based Data Centric Intrusion Detection System for VANET Communications" in *IEEE Open Journal of Vehicular Technology* (2025)
- Lu, Xuecong., Sharma, Prinkle., & Goel, Sanjay., "An Affordance Actualization View of Artificial Intelligence Enabled Mental Healthcare: An Interdisciplinary Review" in *European Journal of Information Systems* (2025)
- Rai, Ritu., Grover, Jyoti. & Sharma, Prinkle., "AttackCAN: A Sensor Data-Driven Dataset for Intrusion Detection in Automotive CAN Bus" in *Wiley Transactions on Emerging Telecommunications Technologies* (2025)

MANUSCRIPT UNDER PREPRATION (Peer Reviewed Articles)

- Winkler, Aidan. & Sharma, Prinkle., "Enhancing Organizational Security with SIEM: A Case Study on MITRE ATT&CK and Wazuh" in *IEEE Access* (2025)
- Sharma, Prinkle., Lu, Xuecong., & Goel, Sanjay., "Tailoring Mental Health Care with AI: Multimodal Feature Extraction for Depression Support" in *IEEE Transactions on Affective Computing* (2025)

FUNDED PROPOSAL

1. **Role:** Principal Investigator

Project: Sharma, P. AI-Based Forensics Investigation Tool for Autonomous Vehicles

Source: University at Albany - Faculty Research Awards Program (FRAP-B)

Time Period: 5/1/21-4/30/23

Total Funding: $1,647

2. **Role:** Principal Investigator

Project: Sharma, P. A Focus on Threat Hunting and Adversarial Emulation

Source: University at Albany - Faculty Research Awards Program (FRAP-B)

Time Period: 5/1/24-10/30/25

Total Funding: $2,148

3. **Role:** Principal Investigator

Project: Sharma, P. Transforming Mental Health with Generative AI

Source: University at Albany - NSF-SAGES Seed Grant through the UAlbany Women in Science and Health (WISH)

Time Period: 11/1/24-08/30/26

Total Funding: $20,000

4. **Role:** Principal Investigator

Project: Sharma, P. How a SIEM can Improve the Security of an Organization

Source: University at Albany - The Minerva Center Innovation Funding for Research & Creative Endeavors

Time Period: 02/1/25-05/30/25

Total Funding: $2,400

TEACHING

1. UFSP 100 – Freshman Seminar Course (F22, F23, F24, F25).
2. BFOR 418/618 – Reverse Malware Engineering (F23, F24).
3. BFOR 306 – Database Security and Forensics (S21, S22, S23, S24, S25).
4. BFOR 100 – Introduction to Information Systems (F20, S21, F21, S22, F22, S23, F23, S24, F24, S25, F25).

SERVICE

Member, Academic Affair Committee, 2024-2025
Member, Search Committee for Management Department Lecture Recruitment, 2025, ***In Progress***
Member, Search Committee for ISDF Tenure Track Faculty Recruitment, 2024-2025, ***Successful***
Chair, Search Committee for ISDF Tenure Track Faculty Recruitment, 2022 – 2023, ***Successful***
ODI Representative, Search Committee for ISDF/ISBA AI Tenure Track Faculty Recruitment, 2022-2023, ***Successful***
Conducted Panel titled "Woman in Business", at UAlbany Showcase Day 2023
Member, Search Committee for ISDF Lecturer Faculty Recruitment, Summer 2023, ***Successful***
Chair, Impact Committee, 2023 – 2024
Member, Research Committee, 2022 - 2024
Member, Teaching and Learning Committee, 2021-2022