

Omer F. Keskin
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Dr. Keskin is an Assistant Professor in the Cybersecurity Department at the College of Emergency Preparedness, Homeland Security, and Cybersecurity (CEHC) at the University at Albany, SUNY. He has a Ph.D. in Systems Engineering and M.S. in Digital Forensics and Cybersecurity. His research interests include organizational cyber risk management, cybersecurity of cyber-physical systems of critical infrastructure, computer network security, cyber insurance, and third-party risk management. He has experience in mentoring and teaching a diverse group of students at high school, undergraduate, and graduate levels.

EDUCATION

- August 2021 **Ph.D.** in Systems Engineering – Old Dominion University
Dissertation title: Quantifying Cyber Risk by Integrating Attack Graph and Impact Graph.
Advisor: C. Ariel Pinto, Ph.D.
- May 2022 **M.S.** in Digital Forensics and Cybersecurity – University at Albany
- December 2015 **M.S.** in Engineering Management– Old Dominion University
Thesis title: Improving Response Characteristics of Split Ring Resonators Using Experimental Designs.
Advisor: Resit Unal, Ph.D.
- August 2013 **B.S.** in Systems Engineering – Turkish Military Academy

UNIVERSITY EXPERIENCE

- 2022 – present **Assistant Professor**; Cybersecurity Department; College of Emergency Preparedness, Homeland Security, and Cybersecurity; University at Albany; State University of New York
- 2019 – 2021 **Researcher / Graduate Research Assistant**; College of Emergency Preparedness, Homeland Security, and Cybersecurity; University at Albany; State University of New York
- 2017 – 2021 **Graduate Research Assistant**; Engineering Management and Systems Engineering Department; Old Dominion University
- 2017 **Course Instructor**; Introduction to Programming with Scratch; Gen-Cyber Cybersecurity and Computer Programming Summer Camp; Old Dominion University
- 2013 – 2016 **Graduate Research Assistant**; Turkish Military Academy

AWARDS

Teaching Excellence in Cybersecurity Award. 2024. College of Emergency Preparedness, Homeland Security and Cybersecurity. University at Albany.

Proposal Writing Class 2022-23. University at Albany. \$1,000.

Student Merit Award of Society for Risk Analysis – Economics and Benefits Analysis Specialty Group. 2017.

3 Year Study Abroad Scholarship. Turkish Land Forces Command. 2013-2016. \$196,000.

PUBLICATIONS

* Undergraduate student co-author at the time of submission

** Graduate student co-author at the time of submission

Peer-Reviewed Publications

Tatar, U., Karabacak, B., **Keskin, O. F.**, & **Foti, D. P. (2024). Charting new waters with CRAMMTS: A survey-driven cybersecurity risk analysis method for maritime stakeholders. *Computers & Security*, 145, 104015. <https://doi.org/10.1016/j.cose.2024.104015>

*Hanan, J. T., *Fowler, E., *Hernandez, S., *Niemczyk, M., Tatar, U., & **Keskin, O. F.** (2024). Analysis of Satellite Systems' Dependencies and Their Cascading Impacts. *2024 Systems and Information Engineering Design Symposium (SIEDS)*, 493–498. <https://doi.org/10.1109/SIEDS61124.2024.10534754>

*Davis, R., & **Keskin, O. F.** (2024). Cyber Threat Modeling for Water and Wastewater Systems: Contextualizing STRIDE and DREAD with the Current Cyber Threat Landscape. *2024 Systems and Information Engineering Design Symposium (SIEDS)*, 301–306. <https://doi.org/10.1109/SIEDS61124.2024.10534706>

Balogun, T. M., Bahsi, H., **Keskin, O. F., & Tatar, U. (2023). A comparative framework for cyber threat modelling: Case of healthcare and industrial control systems. *International Journal of Critical Infrastructures*, 19(5), 405–431. <https://doi.org/10.1504/IJCIS.2023.133282>

Keskin, O. F., **Caramancion, K. M., **Tatar, I., *Raza, O., & Tatar, U. (2021). Cyber Third-Party Risk Management: A Comparison of Non-Intrusive Risk Scoring Reports. *Electronics*, 10(10), 1168. <https://doi.org/10.3390/electronics10101168>

Katina, P. F., & **Keskin, O. F.** (2021). Complex System Governance as a Foundation for Enhancing the Cybersecurity of Cyber-Physical Systems. *International Journal of Cyber Warfare and Terrorism (IJCWT)*, 11(3), 1-14. <http://doi.org/10.4018/IJCWT.2021070101>

Tatar, U., Nussbaum, B., **Gokce, Y., & **Keskin, O.F.** (2021). Digital Force Majeure: The Mondelez Case, Insurance, and the (un)Certainty of Attribution in Cyber Attacks. *Business Horizons*. <https://doi.org/10.1016/j.bushor.2021.07.013>

Keskin, O.F., *Lopez, B.A., *Gannon, N., & Tatar, U. (2021). Scoring Cyber Vulnerabilities Based on Their Impact on Organizational Goals. *IEEE Systems and Information Engineering Design Symposium (SIEDS)*.

- *Portalatin, M., **Keskin, O.F.**, *Malneedi, S., & Tatar, U. (2021). Data Analytics for Cyber Risk Analysis Utilizing a Cyber Incident Dataset. *IEEE Systems and Information Engineering Design Symposium (SIEDS)*.
- Gheorghe, A.V., **Sabz Ali Pour, F., Tatar, U., and **Keskin, O.F.** (2021). Blockchain for a Resilient, Efficient, and Effective Supply Chain: Evidence from Cases. In *Proceedings of the 18th Annual Acquisition Research Symposium*.
- **Kucukkaya, G., **Keskin, O.**, **Poyraz, O., **Kucukozyigit, A. C., Pinto, C. A., & Tatar, U. (2020). Cybersecurity Acquisition Framework Based on Risk Management: Economics Perspective. In *Proceedings of the 17th Annual Acquisition Research Symposium*, 17. Calhoun.
- **Poyraz, O. I., **Bouazzaoui, S., **Keskin, O.**, McShane, M., & Pinto, C. A. (2020, March). Cyber-Assets at Risk (CAR): The Cost of Personally Identifiable Information Data Breaches. In *ICCWS 2020 15th International Conference on Cyber Warfare and Security* (Vol. 402). Academic Conferences and publishing limited.
- Keskin, O.**, Tatar, U., **Poyraz, O., Pinto, C.A., & Gheorghe, A.V.S (2018, March). Economics-Based Risk Management of Distributed Denial of Service Attacks: A Distance Learning Case Study. In *ICCWS 2018 13th International Conference on Cyber Warfare and Security* (Vol. 343). Academic Conferences and publishing limited.
- **Alla, S., **Soltanisehat, L., **Tatar, U., **Keskin, O.** (2018). Blockchain Technology in Electronic Healthcare Systems. In *Proceedings of the 2018 IISE Annual Conference*.
- **Poyraz O.I., **Keskin, O.F.** (2016). Energy Sustainability of Turkey in the Case of LNG. In *Proceedings of the International Annual Conference of the American Society for Engineering Management*. (pp. 1-7). American Society for Engineering Management.

Manuscripts in Preparation or Under Review in Peer Reviewed Journals and Conferences

- **Curebal, F. & **Keskin, O.F.** (In Preparation). Machine Learning for Cybersecurity: Phishing Website Detection. *IEEE Systems and Information Engineering Design Symposium (SIEDS)*.
- Tatar, U., **Keskin, O.F.**, & Dubois, E. (In Preparation). Risk Modeling Methods and Datasets for Cyber Insurance: A Systematic Literature Review. *Computers & Security*.
- Tatar, U., **Keskin, O.F.**, McShane, M., Pinto, A. (In Preparation) Integrating Cyber Risk into Enterprise Risk Management and Quantification Example for a Cyberattack. *Engineering Management journal*.
- Tatar, U., **Keskin, O.F.**, Bahsi, H., Pinto, C.A., & Gheorghe, A. (In Preparation) Quantifying Impact of Cyber Attacks on Missions. *IEEE Access*.

Edited Books

- Tatar, U., Gheorghe, A., **Keskin, O.** & Muylaert, J. (2020). *Space Infrastructures: From Risk to Resilience Governance*. Amsterdam: IOS Press.

Book Chapters

- **Bace. B., **Dubois, E., **Keskin, O.F.**, & Tatar, U., (Accepted) Addressing Catastrophic Cyber Risks Amidst the Landscape of Nation-State Threat Actors. In *Western and European Resilience against Hybrid Warfare*. Quantico, VA: Marine Corps University Press

Technical Reports

- Tatar, U., Nussbaum, B., **Keskin, O.**, **Dubois, E., **Foti, D. **Bace, B., & *Davis, R., (2023, June). Strategies and Solutions Against Catastrophic Cyber Incidents An Expert Panel Discussion. (Catastrophic Cyber Risk: An Expert Panel Discussion Series). Society of Actuaries. <https://www.soa.org/resources/research-reports/2023/cat-cyber-risk/>
- Tatar, U., Nussbaum, B., **Keskin, O.**, Clifford, D., **Dubois, E., **Foti, D., **Bace, B., & *Davis, R. (2023, May). *Red Teaming Analysis of a Widespread Catastrophic Cyber Incident An Expert Panel Discussion*. (Catastrophic Cyber Risk: An Expert Panel Discussion Series). Society of Actuaries. <https://www.soa.org/resources/research-reports/2023/cat-cyber-risk/>
- Tatar, U., Nussbaum, B., **Keskin, O.**, Clifford, D., **Dubois, E., **Foti, D., **Bace, B., & *Davis, R. (2023, March). *Red Teaming Analysis of a Catastrophic Cyber Attack on Critical Infrastructure An Expert Panel Discussion*. (Catastrophic Cyber Risk: An Expert Panel Discussion Series). Society of Actuaries. <https://www.soa.org/resources/research-reports/2023/cat-cyber-risk/>
- Tatar, U., Nussbaum, B., **Keskin, O. F.**, **Dubois, E. V., & **Foti, D. (2023, January). *Setting the Scene: Framing Catastrophic Cyber Risk An Expert Panel Discussion* (Catastrophic Cyber Risk: An Expert Panel Discussion Series). Society of Actuaries. <https://www.soa.org/resources/research-reports/2023/cat-cyber-risk/>
- Dubois, E., Keskin, O., Tatar, U. (2022). *Cyber Risk Modeling Methods and Data Sets: A Systematic Interdisciplinary Literature Review for Actuaries*. (Cyber Risk Compendium). Society of Actuaries. <https://www.soa.org/resources/research-reports/2022/cyber-risk-modeling/>
- Pinto, C.A., Tatar, U., **Keskin, O.F.**, **Kucukkaya, G., **Poyraz, O., **Alfaqiri, A., & **Kucukozyigit, A. (2021). “Cybersecurity Investment Planning Framework: An Economic Business Process View Perspective.” Final Report for Naval Postgraduate School’s Acquisition Research Program.
- Tatar, U., **Keskin, O.F.**, Bahsi, H., & Pinto. C.A. (2020). “Quantification of Cyber Risk for Actuaries.” Final Report. Society of Actuaries. Available at (<https://www.soa.org/globalassets/assets/files/resources/research-report/2020/quantification-cyber-risk.pdf>)

PEER-REVIEWED PRESENTATIONS

- Keskin, O.F.** & Tatar, U. (2024, December 9). A systematic review of risk analysis methods and datasets for cyber insurance. Society for Risk Analysis 2024 Annual Meeting. Conference Presentation
- Keskin, O.F.** & Tatar, U. (2023, December). Handling Risks of Catastrophic Cyber Attacks: A Red-Teaming Analysis from Insurance Perspective. Society for Risk Analysis 2023 Annual Meeting. Poster Presentation
- Keskin, O.F.**, ** Dubois E. V., & Tatar, U. (2023, June 6). Catastrophic Cyber Risks: Insights and Challenges from a Multi-Disciplinary Expert Panel Study. *Hybrid Warfare Security Conference*. Swansea, UK. Virtual Conference Presentation

- Cornell, K.A., Canbaz, M.A., & **Keskin, O.F.** (2023, April 26). Forging Research Partnerships as Tenure-Track Faculty. *New Trends in Informatics Research*. Conference Presentation
- Keskin, O.F.** & Tatar, U. (2021, December 8). Cyber Vulnerability Prioritization – A Cost-benefit Analysis Through Attack and Impact Graph Integration. Society for Risk Analysis 2021 Annual Meeting. Virtual Conference Presentation
- **Caramancion, K., **Tatar, I., **Keskin, O.F.**, & Tatar, U. (2021). Demystifying the variations in non-intrusive cyber risk scores: a comparative analysis on vendors. Society for Risk Analysis 2021 Annual Meeting. Virtual Conference Presentation
- Keskin, O.F.**, **Caramancion, K., **Tatar, I., *Raza, O., & Tatar U. (2021). Benchmarking Vendor Cyber Risk Scoring Approaches in Practice. 16th International Conference on Cyber Warfare and Security. Virtual Presentation
- Keskin, O.F.**, *Gannon, N., *Lopez, B., & Tatar U. (2021). Vulnerability Evaluation and Prioritization for Cyber Resilient Systems. HotSoS '21: Proceedings of the 8th Annual Symposium on Hot Topics in the Science of Security. Virtual Conference Presentation
- Keskin, O.F.** & Tatar, U. (2020, December 16). Probabilistic Cyber Risk Quantification by Using Bayesian Networks. Society for Risk Analysis 2020 Annual Meeting. Virtual Conference Presentation
- Keskin, O.F.** & Pinto, C.A. (2020, December 14). Aggregated Cyber Risk: The Mighty Sand Castle. Society for Risk Analysis 2020 Annual Meeting. Virtual Poster Presentation
- *Portalatin, M., **Keskin, O.F.** *Malneedi, S., *Raza, O. & Tatar, U. (2020, December 14). Data Analytics for Cyber Risk Analysis: Utilizing Cyber Incident Datasets. Society for Risk Analysis 2020 Annual Meeting. Virtual Poster Presentation
- Tatar U. & **Keskin, O.** (2020, March). Resilience Informed Cybersecurity Decision Making. 15th International Conference on Cyber Warfare and Security. Poster Presentation
- Tatar, U., Rorissa, A., & **Keskin, O.** (2020, February). Cybersecurity Education in iSchools. Poster Presentation
- Keskin, O.F.** & Tatar, U. (2019, 12 December). Attack graph based probabilistic cyber risk analysis. Society for Risk Analysis 2019 Annual Meeting. Arlington, VA. Conference Presentation
- Gheorghe, A.V., Sousa-Poza, A., Tatar, U., **Soltanisehat, L., **Sabz Ali Pour, F., **Keskin, O.F.**, & Alla, S. (2018, 8 November). Blockchain and Cybersecurity. Cybersecurity Center of Academic Excellence Symposium. Miami, FL. Poster Presentation
- Gheorghe, A.V., Sousa-Poza, A., Tatar, U., **Soltanisehat, L., **Sabz Ali Pour, F., **Keskin, O.F.**, & Alla, S. (2018, 23 April). Blockchain and Cybersecurity. Cybersecurity Education Workshop. Lake Tahoe, CA. Poster Presentation
- **Tatar, U., **Poyraz, O.I., **Keskin, O.F.** **Kucukkaya, G., **Alfaqiri, A., & Pinto, C.A. (2018, 23 April). Multidisciplinary Risk Management in Cybersecurity: Course Development. Cybersecurity Education Workshop. Lake Tahoe, CA. Poster Presentation

- **Toba, A., **Ngatang, I., **Keskin, O.**, & Seck, M. (2018, 15-18 April). Tool Development for Electricity System Network Management. 2018 Spring Simulation Multi-Conference. Baltimore, MD. Presentation
- **Poyraz, O., **Serttas, O., **Keskin, O.**, Pinto, A., & Tatar, U. (2018). Calculating Impact of Cyber Incidents and Threats on Business Processes. International Conference on Complex Systems. Cambridge, MA.
- Pinto, C.A., **Tatar, U., **Alfaqiri, A., **Poyraz, O., & **Keskin, O.**, (2018, 8-9 March). How to Teach Cybersecurity Risk Management from a Multidisciplinary Perspective. 13th International Conference on Cyber Warfare and Security. Washington, D.C. Poster Presentation
- **Tatar, U., **Keskin, O.F.**, **Poyraz, O.I., Pinto, C.A., & Kucukkaya, G. (2017, 10-14 December). Multidisciplinary Risk Management in Cybersecurity: Course Development. Society for Risk Analysis 2017 Annual Meeting. Arlington, VA. Conference Presentation
- **Tatar, U., **Poyraz, O.I., **Keskin, O.F.** **Kucukkaya, G., **Alfaqiri, A., & Pinto, C.A., (2017, 7-8 August). Multidisciplinary Risk Management in Cybersecurity: Course Development. Cybersecurity Education Workshop. Baltimore, MD. Poster Presentation
- **Poyraz, O.I., **Keskin, O.F.**, & Pinto, C.A. (2017, 10-14 December). Annualized Loss of Revenue Caused by Cyber-attacks for Power Generation in Virginia Using Agent-Based Modeling. Society for Risk Analysis 2017 Annual Meeting. Arlington, VA. Poster Presentation
- **Poyraz, O.I., **Tatar, U., **Keskin, O.F.**, & Pinto, C.A., (2017, 7-8 November). Cybersecurity Risk Management Curriculum Development. 8th Annual National Initiative for Cybersecurity Education (NICE) Conference and Expo. Dayton, OH. Conference Presentation
- Keskin, O.F.**, **Poyraz, O.I., & Pinto, C.A. (2017). Influence of Cyber-Attacks on Power Generation Loss of Revenue Using Agent-Based Modeling, Swarmfest. Work-in-progress presentation
- **Tatar, U., **Poyraz, O.I., **Keskin, O.F.**, Gheorghe, A.V., & Pinto, C.A. (2017). Quantification of Cyber Risk from Insurers' Perspective: An Economic-Functional Approach. Swarmfest. Work-in-progress presentation
- Keskin, O.F.** (2016). How Cyber Attacks Effect Power Generation Systems: A Monte Carlo Simulation Case. Student Capstone Conference. Conference Presentation

EXTERNAL FUNDING

Federal

Role: Co-Principal Investigator (with Principal Investigator Adrian Gheorghe)

Project: Integration of Blockchain Technology into Supply Network for Resilient and Efficient Acquisition

Sponsor: Department of Defense

Time Period: 05/01/2020 – 07/31/2021

Funding: \$120,000

Role: Proposal Writer and Researcher (with Principal Investigator Ariel Pinto)
Project: Cybersecurity Acquisition Framework Based on Risk Management: Economics Perspective
Sponsor: Office of Naval Research
Time Period: 08/01/2018 – 05/31/2020
Funding: \$120,000

Role: Proposal Writer, Researcher, and Principal Course Developer (with Principal Investigator Ariel Pinto)
Project: Multidisciplinary Risk Management in CyberSecurity: Course Development
Sponsor: National Security Agency
Time Period: 03/01/2017 – 08/31/2018
Funding: \$115,000

Foundations

Role: Co-Principal Investigator (with Principal Investigator Unal Tatar)
Project: Red Teaming Analysis for Catastrophic Cyber Risk
Sponsor: Society of Actuaries
Time Period: 06/01/2022 – 06/30/2023
Funding: \$49,500

Role: Co-Principal Investigator (with Principal Investigator Unal Tatar)
Project: A Systematic Review and Compendium of Cyber Risk for Actuaries
Sponsor: Society of Actuaries
Time Period: 12/21/2021 – 07/30/2022
Funding: \$19,180

Role: Co-Principal Investigator (with Principal Investigator Unal Tatar)
Project: Quantification of Cyber Risk for Actuaries: An Economic-Functional Approach
Sponsor: Society of Actuaries
Time Period: 01/01/2019 – 12/31/2020
Funding: \$55,000

Proposals Under Review

Role: Co-Principal Investigator (with Principal Investigator M. Abdullah Canbaz)
Project: PDaSP: Track 3: Multi-Institute Hierarchical Federated Learning Framework (MIH-FL)— Advancing Privacy-Preserving Data Sharing in Mental Health
Sponsor: NSF CNS – Research Experience for Undergraduate
Time Period: 05/01/2025 – 04/30/2028
Funding: \$1,499,846

Role: Co-Principal Investigator (with Principal Investigator M. Abdullah Canbaz)
Project: REU Site: Interdisciplinary Science for Integrative Challenges in Cybersecurity (ISICC)
Sponsor: NSF CNS – Research Experience for Undergraduate
Time Period: 02/01/2025 – 01/31/2028

Funding: \$463,105

Proposals not Funded

Role: Principal Investigator

Project: Assessing and Enhancing the Resilience of Healthcare Infrastructure to Climate-Impacted and Cyber Catastrophes: Implications for Health, Actuarial Practice, and Stakeholder Awareness

Source: Society of Actuaries

Time Period: 09/01/2024 – 08/31/2025

Funding: \$60,000

Role: Principal Investigator

Project: Exploring the Impact of Generative AI on the Actuarial Profession: Challenges and Opportunities

Sponsor: Society of Actuaries

Time Period: 11/01/2023 – 04/30/2024

Funding: \$60,000

Role: Principal Investigator

Project: Education DCL: EAGER: Exploring the Potential of Large Language Models to Transform Cybersecurity Education and Workforce Development

Sponsor: National Research Foundation

Role: Co-Principal Investigator (with Principal Investigator M. Abdullah Canbaz)

Project: REU Site: Interdisciplinary Science for Integrative Challenges in Cybersecurity (ISICC)

Sponsor: NSF CNS – Research Experience for Undergraduate

Time Period: 04/01/2024 – 03/31/2027

Funding: \$462,921

Role: Principal Investigator

Project: RAPID: DRL AI: Artificial Intelligence for K-12 Cybersecurity Education

Sponsor: National Research Foundation

Role: Co-Principal Investigator (with Principal Investigator M. Abdullah Canbaz)

Project: REU Site: Interdisciplinary Science for Integrative Challenges in Cybersecurity (ISICC)

Sponsor: NSF CNS – Research Experience for Undergraduate

Time Period: 02/01/2023 – 01/31/2026

Funding: \$384,211

Role: Co-Principal Investigator (with Principal Investigator Unal Tatar)

Project: Supply Chain Cyber Risk Analysis

Sponsor: Office of Naval Research

Time Period: 04/01/2020 – 03/31/2021

Funding: \$120,000

Role: Co-Principal Investigator (with Principal Investigator Unal Tatar)

Project: Cybersecurity Risk Analysis

Sponsor: Society for Risk Analysis

Time Period: 09/01/2019 – 08/31/2020

Funding: \$20,000

TEACHING

Graduate Courses Taught, Instructor

CYBR 549	CyberSec: LongTrm Plng&Rsk Mg	S23, F23, S24, F24, S25
CYBR 678	Internship Information Science	Su23, F23, Su24
CYBR 699	Master's Thesis	Su24

Undergraduate Courses Taught, Instructor

CYBR 102	Technical Foundations of Cyber	S25
CYBR 124X	Cybersecurity Basics	F22, S23, F23, F24
CEHC 391	Research Internship in EP, HS & C	S24
CYBR 449	CyberSec: LongTrm Plng&Rsk Mg	S23, F23, S24, F24, S25
CINF 466	Ind Research Informatics (Research)	F24
CYBR 466	Ind Research Cyber (Research)	S25

Graduate Course, Co-instructor

ENMA 670	Cyber Systems Engineering	Old Dominion University	Fall 20
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Undergraduate Course, Co-Instructor

CINF 306	Information Security & Assurance	University at Albany	Fall 21
ENMA 424	Risk Analysis	Old Dominion University	Spring 18

Guest Lecturer (Graduate/Undergraduate)

ENMA 751/851	Complexity, Eng. and Mgmt.	Old Dominion University	Summer 21
AMMG U300	Manufacturing Work Practices	Uni. of North Carolina Upstate	Fall 21
AMMG U300	Manufacturing Work Practices	Uni. of North Carolina Upstate	Fall 20

Teaching Assistant, Graduate Course (Old Dominion University)

ENMA 751/851	Complexity, Engineering and Management	Summer 21
ENMA 771/871	Risk & Vulnerability Mgmt of Complex Interdependent Systems	Spring 21
ENMA 705/805	Fundamentals of Financial Engineering	Spring 21
ENMA 712/812	Multi-Criteria Decision Analysis & Decision Support Systems	Fall 20
ENMA 670	Cyber Systems Engineering	Fall 19
ENMA 724/824	Risk Analysis	Fall 17, 18, Spring 18

Courses Developed

Graph-based Cyber Risk Quantification	Funded by the National Science Foundation
Blockchain and Cyber Security	Funded by the National Security Agency
Multidisciplinary Risk Management in Cyber Security	Funded by the National Security Agency

Students Mentored**Ph.D. Students as Supervisor**

Faruk Curebal	2023, 24	CRISIS Lab
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Master's Students as Advisor

Abdalkhadir Ahmed	2023, 24	MS DFC
Alexa Cassidy	2023, 24	MS DFC
Andrew Umbria	2023, 24	MS DFC
Anjali Chindham	2024	MS DFC
Anthony Peters Jr.	2024	MS DFC
Barbara Adjoa Pokua Abaka-Kwansa	2024	MS DFC
Brennan M Miller	2024	MS DFC
Devi Salveru	2024	MS DFC
Harshavardhan Kandimalla	2024	MS DFC
Ilan Shefi	2023, 24	MS DFC
Ivan Francos Medrano	2023, 24	MS DFC
Jason Ashong	2024	MS DFC
Jason P. MacDonough	2023, 24	MS DFC
Jie Chen	2024	MS DFC
Jullian Adriano	2023	MS DFC
Keerthi Priya Kairamkonda	2024	MS DFC
Kiara Ramirez Morales	2024	MS DFC
Lauren Adams	2023, 24	MS DFC
Paul M. Bauccio	2023, 24	MS DFC
Ram Madani	2023, 24	MS DFC
Ratu Bolenaivalu	2024	MS DFC
Rubi Martinez	2024	MS DFC
Safirah (Safi) Milien	2024	MS DFC
Sakshi Bansal	2024	MS DFC
Sheilla Regina Mbogo	2024	MS DFC
Taylor (Madison) Pierce	2023, 24	MS DFC
Temitope Onifade	2023, 24	MS DFC
Venkata "Suresh" Kamma	2023, 24	MS DFC
Vincent Saponaro	2024	MS DFC
Zoila (Zoe) Loja Gomez	2024	MS DFC
Zerish Bhatti	2024	MS DFC

Graduate Internship Students as Faculty Supervisor

Ram Madani	2023	Cybersecurity Management. NYS ITS CISO Office.
Jullian Adriano	2023	Cybersecurity Incident Response. NYS DHSES.
Ivan Francos Medrano	2023	Advanced Red Teaming. CEHC

Laruen Adams	2024	Cybersecurity Incident Response Management. NYS ITS.
Ilan Shefi	2024	Vehicle CAN Bus Security. ARLIS RISC, University of Maryland.

Undergraduate Internship Students Mentored

Lily Plotkin	2024,25	CRISIS Lab. CEHC.
Robert Wadsworth	2024,25	CRISIS Lab. CEHC.
Jacky He	2024,25	CRISIS Lab. CEHC.
Leo Hu	2024,25	CRISIS Lab. CEHC.
Robert J Pavone	2024,25	CRISIS Lab. CEHC.
Trenton Hanan	2024	Analysis of Space Infrastructure Dependencies and Their Cascading Impacts. CEHC.
Ethan P Fowler	2024	Analysis of Space Infrastructure Dependencies and Their Cascading Impacts. CEHC.
Matthew S Niemczyk	2024	Analysis of Space Infrastructure Dependencies and Their Cascading Impacts. Computer Science.
Sebastian Hernandez	2024	Analysis of Space Infrastructure Dependencies and Their Cascading Impacts. Computer Engineering. Florida International University.
Rian Davis	2023	Water Systems Cybersecurity. CEHC.
Miranda Anyen	2021	SQL Database. CEHC.
Dean Poeth	2021	Cybersecurity Data Analytics: VERISDB. CEHC.
Brian Lopez	2020	Building a Cyber Range for Attack Graph Generation. CEHC.
Nick Gannon	2020	Building a Cyber Range for Attack Graph Generation. CEHC.
Melissa Portalatin	2020	Cybersecurity Data Analytics: VERISDB. CEHC.

High School Students Mentored (Summer Internship)

Simran Nichani	2024	Critical Infrastructure Cybersecurity.
Mariya Morwala	2024	Critical Infrastructure Cybersecurity.
Emmy Lamb	2021	Analysis of VERISDB Cybersecurity Dataset.
Maddy Bisceglia	2021	Analysis of VERISDB Cybersecurity Dataset.
Ansh Garg	2021	Analysis of VERISDB Cybersecurity Dataset.
Satvik Malneedi	2021	Analysis of VERISDB Cybersecurity Dataset.
Sami Gundogan	2021	Analysis of VERISDB Cybersecurity Dataset.
Sneha Malneedi	2020	Analysis of VERISDB Cybersecurity Dataset.
Sneha Malneedi	2019	Cyber Crisis Management.
Sophia Lenigk	2019	Maritime Cybersecurity.

Awards Mentored Students Received

Ethan Fowler (2024) Excellence in Published Works Award, CEHC Student Recognition Awards
 J. Trenton Hanan (2024) *“Analysis of Satellite Systems’ Dependencies and Their Cascading Impacts”* Presidential Award for Undergraduate Research at the University at Albany

PROFESSIONAL SERVICE AND MEMBERSHIP

2017 – present Society for Risk Analysis
2017 – 2018 Golden Key Honor Society
2017 – 2018 RIMS Virginia Chapter
2017 – 2018 Gamma Iota Sigma Fraternity
2016 – 2017 American Society for Quality, Student Member
2016 – 2017 American Society for Engineering Management, Student Member
2014 – 2015 American Association of Geographers

SERVICE

Cybersecurity Department at UAlbany

Chair, Accreditation Committee, 2023-Present
Member, Undergraduate Program Committee, 2022-Present
Member, Graduate Committee, 2022-Present
Member, Ad-hoc Scholarships Committee, 2022-Present
Member, Ad-hoc Tenure & Promotion Committee, 2022-Present

College of Emergency Preparedness, Homeland Security and Cybersecurity at UAlbany

Member, Awards Committee, 2022-Present
Member, Search Committee for Associate/Full Professor AI Cybersecurity, 2023-2024
Member, CEHC Name Change Committee, 2023
Member, Search Committee for Assistant Professor EMHS, 2023
Member, Information Science Ph.D. Program Admission Committee, 2022-2023

University Level Service at UAlbany

Member, Undergraduate Academic Council - University Senate, 2024-2025

Profession

Officer, Chair, Economics and Benefits Analysis, Society for Risk Analysis, 2024 - Present
Symposium Chair, “Economics of Cyber Risk Management and Resilience: Innovative Strategies and Regulatory Frameworks”, Society for Risk Analysis Annual Meeting. Austin, TX. 2024
Officer, Vice Chair, Economics and Benefits Analysis, Society for Risk Analysis, 2024
Officer, Secretary, Economics and Benefits Analysis, Society for Risk Analysis, 2022 - 2023
Symposium Chair, “Cost-Benefit Analysis for Critical Infrastructure Cybersecurity”, Society for Risk Analysis Annual Meeting. Washington, DC. 2023
Symposium Chair, “Risk Informed Decision and Benefit Analysis in Cybersecurity”, Society for Risk Analysis Annual Meeting. Tampa, FL. 2022

Facilitator, 17th International Conference on Cyber Warfare and Security, Albany, NY, 2022

Publicity Chair, NATO Advanced Research Workshop: Space Critical Infrastructures, 2019

Program Co-Chair, Spring Simulation Multi-Conference, Work in Progress Track, 2018

Publicity Chair, NATO Advanced Research Workshop: A Framework for a Military Cyber Defence Strategy, 2016

Facilitator, GenCyber Summer Camp for Middle School Students, Old Dominion University, 2016

Reviewer, International Journal of Cyber Warfare and Terrorism (IJCWT), 2020

Reviewer, Information Security Journal, 2020

Reviewer, IEEE Systems and Information Engineering Design Symposium, 2021

Reviewer, International Conference on System of Systems Engineering (SoSE), 2021

Reviewer, Spring Simulation Multi-Conference, Annual Simulation Symposium Track, 2018

Reviewer, Institute of Industrial & Systems Engineers Annual Conference & Expo, Society for Engineering & Management Systems, 2018

Peer-Reviewer, American Society of Engineering Management Annual Conference, 2016

Community

Judge, STEM Trifecta: Robotics, Maker and Cyber Security Competition for K-12; Virginia Beach, VA, 2017

Department / University Service at Old Dominion University

2017 – 2019 **Instructional Technology Team Leader, Instructional Designer, Instructional Technology Specialist.** Asynchronous Master's Degree Program Development

2018 – 2019 **Vice President;** Cyber Security Student Association

2018 – 2019 **President;** Old Dominion University Student Branch, American Society for Quality

2018 – 2019 **Vice President;** American Society for Engineering Management Old Dominion University Student Chapter

2017 – 2018 **Vice President;** Old Dominion University Student Branch, American Society for Quality

2015 – 2018 **Treasurer;** American Society for Engineering Management Old Dominion University Student Chapter

2017 Program Comparison; Master of Engineering in Systems Engineering

2017 Graduate and Professional Development Fair; Virginia Beach, VA

COMPUTER SKILLS

Cybersecurity

Linux Distributions – Kali, Ubuntu (SIFT Workstation)

Virtual Machine Software – Virtual Box, VMware

Command Line Interface – Windows Command Prompt, Linux Terminal, Mac OS Terminal

Packet Capturing & Analysis – Wireshark, Tcpdump, Editcap

Network Security Monitoring – Security Onion

Penetration Testing Tools – Metasploitable Framework, OWASP, DVWA, Recon-ng

Computer Forensics Tools – USB Historian, FTK Imager, Volatility

Hashing tools – ssdeep, Hashtools

Industrial Control Systems

Programmable Logic Controller – Ladder logic programming

Data Analytics and Visualization

Programming, Data Analytics – Python, R, MATLAB

Geographic Information Systems – Esri ArcGIS

SQL – Executing SQL queries and analyzing large datasets

Statistics – Minitab

Others

Agent-Based Modeling – NetLogo

Course Authoring Tools – Articulate 360, Adobe Captivate

Word Processor – Microsoft Word, Apple Pages

Data Analysis and Visualization – Microsoft Excel, Apple Numbers

Web Site Design – WordPress

Presentation – Microsoft PowerPoint, Apple Keynote, Prezi

Editing PDF – Adobe Acrobat Pro

CERTIFICATES

2023 Security+

2018 American Society of Quality- Lean Six Sigma Green Belt. Exam passed.

2017 The Cyber Security Risk Management Lecture Series, By Cyber Security Student Association and Emergent Risk Initiative

LANGUAGES

Turkish, native

English, fluent

Russian, can read with dictionary

German, can read with dictionary

PROFESSIONAL DEVELOPMENT ACTIVITIES

Workshop Participation

NSF CAREER Proposal Writing Workshop, University at Albany, (May 2024).

Security Engineering for Safety-Critical Systems, University of Colorado Colorado Springs, (July 17, 2023 - August 18, 2023).

Artificial Intelligence in Cybersecurity, Dakota State University, (August 7, 2023 - August 8, 2023).

Industrial Control Systems and Renewable Energy (ICS-RE) Security, University of West Florida (UWF), (June 26, 2023 - July 24, 2023).

Malware Analysis, Dakota State University, (June 27, 2023 - June 28, 2023).

Offensive Security, Dakota State University, (May 24, 2023 - May 25, 2023).

Albany Cyber Resiliency Workshop, By Federal Emergency Management Agency, DHS, Albany, NY, (2019).

Cyber Analysis, Simulation, and Experimentation (CASE-V) Workshop, By Norfolk State University; Norfolk, VA, (2017).

Santa Fe Institute's Massive Open Online Course Introduction to Agent-Based Modeling, (2016).

NIST Cybersecurity Framework Workshop; By NIST, Baltimore, MD (2016).

Conference Attendance

Cyber Risk Insights Conference, By Zywave., New York, NY, (November 6, 2024).

SANS ICS Security Summit, SANS Institute, (September 13, 2024).

2024 New York State Cybersecurity Conference, NY State, (June 4-5, 2024).

Pen Test HackFest & Cyber Ranges Summit, SANS Institute, (June 4-5, 2020).

SANS ICS Security Summit, SANS Institute, (June 2-3, 2022).

SANS New2Cyber Summit, SANS Institute, (March 23, 2022).

SANS Open-Source Intelligence Summit, SANS Institute, (April 7, 2022).

SOAR Solutions Forum 2022, SANS Institute, (March 10, 2022).

Pen Test HackFest & Cyber Ranges Summit, SANS Institute, (June 4-5, 2020).

Cyber Risk Insights Conference, By Advisen Ltd., New York, NY, (2019).

Cyber Risk Insights Conference, By Advisen Ltd., New York, NY, (2017).

Hampton Roads Regional Cyber Security Conference: Cyber Threat Intelligence; By Thomas Nelson Community College, Hampton, VA, (2017).

Maritime Risk Symposium, By University of North Carolina at Chapel Hill, Chapel Hill, NC, (2016).

Virginia Cyber Convention & Expo; Virginia Beach, VA, (2016).

Hampton Roads Regional Cyber Security Conference: Cyber Threat Intelligence; By Thomas Nelson Community College, Hampton, VA, (2016).

Cyber Physical Systems Summit; By Jefferson Lab, Newport News, VA, (2016).

TIDE Sprint; By NATO Supreme Allied Commander Transformation, Virginia Beach, VA, (2015).

Webinar Attendance

SANS Fall Cyber Solutions Fest, SANS Institute, (November 7-8, 2024).

The Global Burden of the COVID-19 Pandemic: Comparing Benefit-Cost Analysis and Social Welfare Analysis, Society for Risk Analysis, EBASG, (June 20, 2024).

An Economic Perspective on How Cyber Insurance Shapes Incident Response, Society for Risk Analysis EBASG, (April 24, 2024).

Promoting Equitable Wildfire Resilience of Critical Infrastructure Systems Using a Human-centric Risk-informed Decision Framework, Society for Risk Analysis EISG, (April 5, 2024).

Managing Physical and Economic Risk for Systems with Multidirectional Network Interdependencies, Society for Risk Analysis EBASG, (March 13, 2024).

Incident Response for ICS: You Are Not Alone! Critical Controls for Consequence-Driven Incident Response, Dragos, (January 18, 2024).

The ICS ATT&CK Map Series: Water Sector, SANS Institute, (January 12, 2024).

People, Process & Technology, RSA Conference, (September 7, 2023).

The ICS Attack Map Series: Oil & Gas, SANS Institute, (July 13, 2023).

Beyond ChatGPT, Building Security Applications using OpenAI API, SANS Institute, (March 1, 2023).

2022 ICS/OT Cybersecurity Year in Review Executive Briefing, SANS Institute, (February 23, 2023).

Discover the NEW ICS Cybersecurity Field Manual – Vol. 2, SANS Institute, (January 23, 2023).

SANS Presents: What you need to know about OpenAI's new ChatGPT bot and how it affects your security, SANS Institute, (December 21, 2022).

The State of OT/ICS Cybersecurity in 2022 and Beyond, SANS Institute, (October 28, 2022).

Let's Get Serious: Protecting Industrial Control Systems is Mission-Critical, (October 11, 2022).

Government Security Solutions Forum, SANS Institute, (July 21, 2022).

SANS 2022 SOC Survey, SANS Institute, (May 18, 2022).

PIPEDREAM and Countering ICS Malware, SANS Institute, (April 27, 2022).

2022 SANS Survey: Securing Infrastructure Operations, (March 2, 2022).

2021 ICS Headlines from the Year in Review, SANS Institute, (March 1, 2022).

How to Operationalize ICS Threat Intelligence, SANS Institute, (February 17, 2022).

Cyber Insurance: Optimizing Costs While Minimizing Risk, SANS Institute, (November 2, 2021).

A SANS 2021 Survey: OT/ICS Cybersecurity Panel Discussion, SANS Institute, (August 31, 2021).

MITRE ATT&CK® for ICS: A Technical Deep Dive, (May 22, 2020).

Cyber Insurance Conundrum: Using CIS Critical Security Controls for Underwriting Cyber Risk-
A Masters Degree Candidate Presentation, (January 31, 2018).