

Mohammad A. Nouredine

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CONTACT INFORMATION

Rose-Hulman Institute of Technology
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CURRENT POSITION

Rose-Hulman Institute of Technology, Terre Haute, IN
Assistant Professor of Computer Science and Software Engineering **August 2020 – Present**

EDUCATION

University of Illinois at Urbana Champaign, Urbana, IL
Ph.D. in Computer Science **August 2014 – July 2020**

- Thesis: Achieving Network Resiliency using Theoretically-Sound and Practically-Realizable Designs.
- Advisor: Prof. William H. Sanders

American University of Beirut, Beirut, Lebanon
M.S. in Computer Engineering **September 2011 – May 2014**
B.E. in Computer Engineering **September 2007 – July 2011**

WORK EXPERIENCE

University of Illinois at Urbana-Champaign, Urbana, IL
Graduate Research Assistant at the PERFORM lab **August 2014 – July 2020**

American University of Beirut, Beirut, Lebanon
Graduate Research Assistant at the PCA lab **August 2010 – July 2014**

Ecole Polytechnique Federal de Lausanne (EPFL), Lausanne, Switzerland
Research Intern at the Rigorous System Design Laboratory (RISD) **August 2013 – November 2013**

PUBLICATIONS

Conference Papers

1. Carter Yagemann, Mohammad A. Nouredine, Wajih Ul Hassan, Simon Chung, Adam Bates, and Wenke Lee. Validating the integrity of audit logs against execution repartitioning attacks. In *Proceedings of the 2021 ACM SIGSAC Conference on Computer and Communications Security, CCS '21*, page 3337–3351, New York, NY, USA, 2021. Association for Computing Machinery
2. Mohammad A. Nouredine, Ahmed M. Fawaz, Amanda Hsu, Cody Guldner, Sameer Vijay, Tamer Başar, and William H. Sanders. Revisiting client puzzles for TCP state exhaustion attacks tolerance. In *2019 49th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN)*, 2019
3. Wajih Ul Hassan, Mohammad A. Nouredine, Pubali Datta, and Adam Bates. Omegalog: High-fidelity attack investigation via transparent multi-layer log analysis. In *Network and distributed system security symposium*, 2020
4. A. M. Fawaz, M. A. Nouredine, and W. H. Sanders. POWERALERT: Integrity checking using power measurement and a game-theoretic strategy. In *2018 48th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN)*, pages 514–525, June 2018
5. Carmen Cheh, Ahmed Fawaz, Mohammad A. Nouredine, Binbin Chen, William G. Temple, and William H. Sanders. Determining tolerable attack surfaces that preserves safety of cyber-physical systems. In *2018 IEEE 23rd Pacific Rim International Symposium on Dependable Computing (PRDC)*, pages 125–134, 2018

6. Atul Bohara, Mohammad A. Nouredine, Ahmed Fawaz, and William H. Sanders. An unsupervised multi-detector approach for identifying malicious lateral movement. In *2017 IEEE 36th Symposium on Reliable Distributed Systems (SRDS)*, pages 224–233, Sept 2017
7. Mohammad A. Nouredine, Ahmed Fawaz, William H. Sanders, and Tamer Başar. A game-theoretic approach to respond to attacker lateral movement. In *Proceedings of the 7th Conference on Decision and Game Theory for Security (GameSec)*, November 2-4 2016
8. Mohammad A. Nouredine, Andrew Marturano, Ken Keefe, William H. Sanders, and Masooda Bashir. Accounting for the human user in predictive security models. In *Proceedings of the 22nd IEEE Pacific Rim International Symposium on Dependable Computing (PRDC)*, January 22-25 2017
9. Mohamad Nouredine, Mohamad Jaber, Simon Bliudze, and Fadi A. Zaraket. Reduction and abstraction techniques for BIP. In *Formal Aspects of Component Software*, volume 8997, pages 288–305. 2014
10. Fadi A. Zaraket, Mohamad Nouredine, Mohamed Sabra, and Ameen Jaber. Portable parallel programs using architecture-aware libraries. In *Proceedings of the 27th Annual ACM Symposium on Applied Computing-Poster Session*, pages 1922–1924. ACM, 2012

Journal Papers

1. Fadi A. Zaraket, Mohamad Jaber, Mohamad A. Nouredine, and Yliès Falcone. From high-level modeling toward efficient and trustworthy circuits. *International Journal on Software Tools for Technology Transfer*, Jun 2017
2. Mohammad A. Nouredine and Fadi A. Zaraket. Model checking software with first order logic specifications using AIG solvers. *IEEE Transactions on Software Engineering*, 42(8):741–763, Aug 2016

Patents

1. Adam Bates Yuile, Wajih Ul Hassan, and Mohammad Nouredine. Transparent interpretation and integration of layered software architecture event streams, 2021

TEACHING EXPERIENCE

Rose-Hulman Institute of Technology

August 2020 – present

- Operating Systems (CSSE332), Winter 2021, Spring 2021, Winter 2022, Spring 2022.
- Computer Architecture I (CSSE232), Fall 2021, Winter 2021, Fall 2022.
- Network Security (CSSE490), Spring 2022.
- Data Structures and Algorithm Analysis (CSSE230), Winter 2021.
- Introduction to Software Development (CSSE120), Fall 2021.

HONORS AND AWARDS

- Recipient of the UIUC College of Engineering's Mavis Future Faculty Fellowship (MF3) for the academic year 2018 – 2019.
- Ranked as an excellent instructor after being the head instructor for ECE541: Computer System Analysis during the Fall 2018 semester.
- Graduated with high distinction from the American University of Beirut.
- Placed in the Dean's honor list in all semesters attended at the American University of Beirut.
- Received a full scholarship from the Lebanese Government to attend undergraduate college at the American University of Beirut.
- Ranked third nationwide in the Lebanese national high school exams, July 2007.

LANGUAGES

Excellent speaking and writing skills in English, French and Arabic