# Arshia Rafieioskouei

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## Education

**Michigan State University |** Ph.D. in Computer Science                     **Spring 2023 – Present**

- **Focus:** Causality, Formal Methods, Probabilistic Model Checking, Reinforcement Learning, Cyber-Physical Systems
- **GPA:** 4.0/4.0

**Sharif University of Technology |** B.Sc. in Computer Engineering          **Fall 2016 – Fall 2021**

- **GPA:** 3.82/4.0

## Publications

**Causality Analysis of Protein Corona Composition: Phosphatidylcholine Enhances Plasma Proteome Profiling by Proteomics**                     **2024**

Arshia Rafieioskouei, Kenneth Rogale, Amir Ata Saei, Morteza Mahmoudi, Borzoo Bonakdarpour

Nanoscale **(Under Review)**

**Efficient Discovery of Actual Causality using Abstraction-Refinement**          **2024**

Arshia Rafieioskouei, Borzoo Bonakdarpour

ACM SIGBED International Conference on Embedded Software (EMSOFT 2024)

## Experience

**Michigan State University | Research Assistance**                     **2023 – Present**

- Applied advanced causal modeling in Cyber-physical systems.
- Applied probabilistic actual causality methods to advance research in nanoscience.

**Dalhousie University | Research Assistance**                     **2022**

- Applied Machine Learning techniques to enhance IoT security protocols.

## Technical Skills

**Topics:** Causality, Deep Reinforcement Learning, Formal Methods, Markov Decision Process, Cyber-physical Systems, Internet of Things

**Programming Languages:** Python (Advanced), C++ (Advanced), JAVA (Advanced), Swift (Intermediate), Matlab (Advanced)

**ML Frameworks:** PyTorch, TensorFlow, Scikit-Learn, Pandas, NumPy

## Awards & Honors

**SIGDA Student Travel Grant**                     **2024**

**Ranked 5th GPA the graduating class of 2020 |** Sharif University of Technology          **2020**

**Ranked in the top 1% out of 180,000 |** Iran's Nationwide University Entrance Exam          **2016**

## Activities & Services

**ACM Student Member**

**Cisco Network Associate Routing and Switching (CCNA) certificate |** Tehran Institute of Technology (MFT)

**Peer-evaluated Conference Paper Reviews/Sub-reviews:**

- (SRDS24)     International Symposium on Reliable Distributed Systems
- (EMSOFT24)   International Conference on Embedded Software
- (ICCPS24)    International Conference on Cyber-Physical Systems

## Teaching Experience

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**Michigan State University |** Teaching Assistance                        **Spring 2023**

- Object-Oriented Software Development (CSE335)

**Dalhousie University |** Teaching Assistance                        **Fall 2022**

- Introduction to Information Security (CSCI 2201)