

MARYAM BABAEI

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EDUCATION

- École de technologie supérieure(ÉTS)** *Sep. 2022 - 2026*
Department of Software Engineering and IT *Current GPA: 4.13/4.30*
Ph.D. Doctorate in Engineering
Advisors: Dr. Ulrich Aïvodji, Dr. Sébastien Gambs
Thesis: Security and Privacy Risks of Post-hoc Explanation Techniques
- Mila - Québec Artificial Intelligence Institute** *Since May 2024*
Student Member
- NSERC CREATE - Responsible Development of Artificial Intelligence** *Since June 2023*
Student Member
- Isfahan University of Technology (IUT)** *Sep. 2007 - Feb. 2010*
Department of Electrical and Computer Engineering *GPA: 17.78/20*
MSc. Degree in Computer Architecture
Advisor: Dr. S.R. Mousavi
Thesis: A study of existing algorithms for some string selection and comparison problems and providing improved algorithms
- Amirkabir University of Technology (AUT)** *Sep 2002 - May 2007*
Department of Computer Engineering and Information Technology *GPA: 15.48/20*
BSc. Degree in Software Engineering,
Advisor: S. M. Hosseinienejad
Thesis: A Neural Network Procedure for Approximating Input Parameters of a Web Services Security Model

PUBLICATIONS

Preprint

2024 Babaei, M., Arcolezi, H. H., Lautraite, H., Aïvodji, U., Gambs, S., Differentially-private and plausible counterfactuals, Submitted to ECML 2025 journal track

2023 Mbiazi, D., Bhange, M., Babaei, M., Sheth, I., Kenfack, P. J. (2023). Survey on AI Ethics: A Socio-technical Perspective. arXiv preprint arXiv:2311.17228.

Journal

2016 Babaei M., Modaberi S., New Methods of Ransom: Ransomware, Modern World Thief, Peyvast Journal, No. 40, November 2016, pp 82.85 (In Farsi)

2012 Mousavi S. R., M. Babaie, M. Montazerian, An Improved Heuristic for The Far From Most Strings Problem, Journal of Heuristics, Volume 18, Issue 2, April 2012, pp 239-262.

Conference

2011 Babaei M, and Mousavi S. R., A GRASP Algorithm for Closest String Problem in Bioinformatics, In proc. Of 2nd International Conference on Contemporary Issus in Computer and Information Science, Zanjan, Iran (In Farsi)

2010 Babaei M. and Mousavi S. R., "A Memetic Algorithm for Closest String Problem and Farthest String Problem," in Proc. 18th Iranian Conference on Electrical Engineering, 2010, available at IEEE Xplore.

2008 Babaei M., Saffar Yazdi Z., Saraee M. H., Pre-processing Techniques for Data Mining Applications, Second Iran Data Mining Conference. (In Farsi)

Book

2014 Tahmasebian F., Babaei M., Ghafoori Z., Secure coding guideline for Iranian Banking System, Naghoos Publication [In Farsi]

2014 Babaei M., Jabarian A., Ghafoori Z., Tahmasebian F., Ziaie A. and Abolhasani Z., POS, KIOSK and ATM Hardening Guidelines for Iranian Banking System, Naghoos Publication. (In Farsi)

TEACHING EXPERIENCE

Instructor, Sepahan Institute of Higher Education, Isfahan, Iran
Computer Architecture, BSc. course for Computer Engineering

Spring Semester 2008

Teaching Assistant, Isfahan University of Technology, Isfahan, Iran
Database Lab., BSc. Course for Computer Engineering

Winter Semester 2007

WORK EXPERIENCE

Software Quality Assurance Analyst, Informatics Services Corporation, Tehran, Iran *June 2020 – September 2022*

Information Security analyzer, Informatics Services Corporation, Tehran, Iran *June 2012 – June 2020*

Web Analyzer and Programmer(C#.Net), Monenco Iran Consultant Engineers Co., Tehran, Iran *June 2010 – June 2012*

Software System Analyzer, Research and Development Unit, Hoda e-Health Development Company, Tehran, Iran *May- August 2007*

SKILLS

Programming Languages and Frameworks

- Machine learning, Post-hoc explanations, Trustworthy machine learning
- Auditing and testing Windows/Linux systems security
- Web application security audit, Banking Application Security and Functionality Testing

LANGUAGES

- English - Fluent
- French - Basic
- Farsi - Native

AWARDS AND HONNORS

Top Female Team Award , UN PET Hackathon Competition *2022*
Competition conducted by the United Nations Privacy Enhancing Technologies (PETs) Lab

AI Ethics award as TISL team , Kaggle AI Report competition, Best Essay on AI Ethics *2023*

Student Travel Award, 2nd IEEE Conference on Secure and Trustworthy Machine Learning *2024*

Best Poster Presentation Award Canadian AI, Responsible AI Conference Track, for poster on Privacy Preserving Counterfactuals *2024*