

Taha Rostami

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Education

- M.Sc., Software Engineering, Tarbiat Modares University (TMU), Iran, GPA: 3.88/4.0** 2019 - 2022
- B.Sc., Software Engineering, Babol Noshirvani University of Technology (BNUT), Iran, GPA: 3.55/4.0** 2014 - 2019

Work Experience

Research Assistant, Tarbiat Modares University Sep 2020 - Oct 2022

- Developed innovative methods for predicting fault-revealing mutants, resulting in a 9% accuracy improvement
- Developed transfer learning-based methods that outperformed previous solutions in Mutant Selection and Prioritization by 67% and 4%
- Investigated predictive mutation testing and proposed a method that handles missing values with a 10% accuracy improvement
- Formulated and suggested concrete frameworks for future research on Dynamic Mutant Prioritization and Dynamic Mutant Selection

Tutor, Faradars Company [\[link\]](#) Jan 2021 - Mar 2021

- Created and taught a C# course on Consuming Web Services, purchased by around 250 students with very positive feedback

Software Developer Intern, RADMAN Company Jul 2018 - Sep 2018

- Customized RADMAN's website template using Html5, CSS3, and Java Script
- Designed and implemented the SQL server database and backend of RADMAN's website using C# and ASP.NET Core

Teaching Assistant, Babol Noshirvani University of Technology Feb 2017 - Jun 2017

- Designed and oversaw a project for an Advanced Programming course, delegating tasks to 70 students
- Instructed C# by guiding students through multiple practice problems

Software Developer Intern, Behineh System Company Jul 2015 - Sep 2015

- Developed management software for a client using C#
- Designed and implemented a SQL Server database for the software

Volunteer Work Experience

- Identified potential issues in published research related to software engineering, contributing to scientific integrity, such as [\[link\]](#)
- Applied technical expertise to interdisciplinary domestic/international projects, ensuring timely completion, such as [\[link\]](#) and [\[link\]](#)
- Mentored 10 computer science, chess, and language students on study strategies, career development, and problem-solving techniques
- Assisted Farsi language learners on the HiNative platform, improving their speaking, writing, and comprehension skills [\[link\]](#)

Last Undergraduate Projects

Harif - a graph-based automatic course-selection system that recommends schedules based on students' preferences [\[link\]](#) 2018

- Analyzed the curriculum published by the Ministry of Science and BNUT
- Formulated the core problem as MAX-SAT with a set of hard and soft constraints
- Designed and implemented a randomized algorithm for solving the problem
- Designed and implemented efficient software using C# that provides all the above facilities with a modern and user-friendly interface

NitPhoneBook - A phone book for BNUT [\[link\]](#) 2018

- Specified the system's requirements by conducting a series of interviews with BNUT's administrators
- Analyzed the specified requirements and designed an architecture for the software
- Designed and implemented a recursive algorithm that satisfies one of the primary requirements of the system

- Designed and implemented a SQL server database of the system in collaboration with other members
- Designed and implemented a desktop application with a modern and user-friendly interface

Awards

Academic

- Outstanding student, ranked 1st at Computer Engineering Dept., TMU, Tehran, Iran, 2021
- Highly Competitive Scholarship for MSc in Software Engineering study at TMU, 2019
- Highly Competitive Scholarship for BSc in Software Engineering study at BNUT, 2014

Others

- Iran Chess Premier League, 1st with Asa Saraye Sameh Team, 2013
- Ranked 3rd place in Asian Youth Blitz chess championships, with Iranian National Team, Southern, Sri Lanka, 2012
- Iran Chess League One, 3rd with Asa Saraye Sameh Team, 2011
- Ranked 1st place in Calligraphy Competition, Mazandaran, Iran, 2007

Languages

- Persian - Native
- English - TOEFL iBT: Total 93, Reading 28, Listening 21, Speaking 22, Writing 22, April 01, 2023

Computer Skills

- **Highly skilled in Microsoft technologies**, with 6+ years of expertise in C#, SQL Server, ASP.NET Core, ML.NET, SignalR, and more
- **Highly experienced in data science tools**, with 3+ years of experience in Python, PyTorch, TensorFlow, LightGBM, Optuna, and more
- **Familiar with Z3, LLVM, Hugging Face, NLTK, PyG, Stable Baselines, PyGad, JavaScript, Java, C, R, Hadoop, Docker, Git, and more**

Publications

Scientific

- [1] **T. Rostami**, "Simpler machine learning models for predicting non-trivial equivalent mutants," The Journal of Systems & Software, Submitted, 2023 [\[link\]](#)
- [2] **T. Rostami**, S. Jalili, "Effective Prediction of Valuable Mutants through Fine-tuning the UniXcoder Pre-trained Model," in 38th IEEE/ACM International Conference on Automated Software Engineering, Submitted, 2023 [\[link\]](#)
- [3] **T. Rostami**, S. Jalili, "FrMi: Fault-revealing Mutant Identification using Killability Severity," Information and Software Technology, Accepted with Minor Revisions, 2023 [\[link\]](#)
- [4] **T. Rostami**, S. Jalili, "A heuristic function for improving the prediction accuracy of fault revealing mutants," in 9th Iranian Joint Congress on Fuzzy and Intelligent Systems, 2022 [\[link\]](#)
- [5] **T. Rostami**, S. Jalili, "A method for improving predictive mutation testing that considers the impacts of missing data," in 12th International Conference on Information and Knowledge Technology, 2021 [\[link\]](#)

Others

- [1] **T. Rostami**, "Navigating the Challenges of Studying Computer Science: A Guide for Students at Babol Noshirvani University of Technology," 2023 [\[link\]](#)

References

Saeed Jalili, Associate Professor of Computer Science, TMU, sjalili@modares.ac.ir [\[g.scholar\]](#) [\[homepage\]](#)

Ali Gholami Rudi, Assistant Professor of Computer Science, BNUT, gholamirudi@nit.ac.ir [\[g.scholar\]](#) [\[homepage\]](#)

Hesam Omranpour, Assistant Professor of Computer Science, BNUT, h.omranpour@nit.ac.ir [\[g.scholar\]](#) [\[homepage\]](#)