Taha Rostami

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Website | GitHub | LinkedIn | Google Scholar |

Education

- **Ph.D. in Software Engineering**, University of Luxembourg, Luxembourg, 2025–present.
- **M.Sc. in Software Engineering**, Tarbiat Modares University (TMU), Iran, 2019–2022. GPA: 3.88/4.0 (Ranked 1st, Outstanding Student).
- **B.Sc. in Software Engineering**, Babol Noshirvani University of Technology (BNUT), Iran, 2014–2019. GPA: 3.55/4.0.

Publications

- T. Rostami, C. Bright. *Queen Domination by SAT Solving.* arXiv preprint, submitted to journal, 2025. [arXiv]
- T. Rostami, S. Jalili. "FrMi: Fault-revealing Mutant Identification using Killability Severity." *Information and Software Technology*, 2023. [link]

Research Experience

- **Research Assistant**, Security, Reasoning and Validation (SerVal), Interdisciplinary Centre for Security, Reliability and Trust (SnT), University of Luxembourg, Luxembourg, Jul 2025–present. Working under the supervision of Dr. Mike Papadakis on software testing.
- **Researcher (Project-based, Remote)**, Algorithms & Mathematics Group, University of Windsor, Canada, Oct 2023–Sep 2024; May 2025–Jul 2025. Conducted research under the supervision of Dr. Curtis Bright on solving mathematical problems using automated theorem provers.
- **Research Assistant**, Safety-Critical Software & Systems Lab, Tarbiat Modares University (TMU), Iran, Sep 2020–Oct 2022. Conducted research under the supervision of Dr. Saeed Jalili on applied machine learning for software testing.

Teaching Experience

- **Tutor**, Faradars (Jan 2021 – Mar 2021). Created and taught a C# course on Consuming Web Services.
- **Teaching Assistant**, Advanced Programming Course, BNUT (Feb 2017 – Jun 2017). Designed and oversaw a project and delegated tasks.

Work Experience

- **Web Developer Intern**, Radman (Jul 2018 – Sep 2018). Developed a website using C#, ASP.NET Core, and SQL Server.
- **Software Developer Intern**, Behineh System (Jul 2015 – Sep 2015). Developed management software using C# and SQL Server.

Sample Code / Projects

- **SAT Log** (2025) – Collection of problems solved using SAT solvers, including: Einstein's Riddle, Rubik's Cube, Wumpus World, Latin Square, Ramsey Number, and more.
- **MiniPyDPLL** (2024) – Python implementation of the DPLL algorithm.
- **Light-Gray Deep Learning** (2024) – LSTM, Seq2Seq with attention, Transformers with beam search decoding.
- **GDP Estimator** (2023) – GDP estimation using SMT solvers (Z3) and ML clustering.
- **Harif (B.Sc. Final Project)** (2018) – Automated university enrollment using graph modeling + randomized search.

Relevant Computer Skills

- **Programming:** Python (frequent), SQL (extensive past), C++ (occasional), C# (extensive past), Java (rare).
- **Data Science Tools:** PyTorch, Hugging Face, LangChain, scikit-learn, XGBoost.
- **Automated Reasoning Tools:** PySAT, SAT Solvers (MiniSAT, CaDiCaL), Z3.
- **Other:** Docker, Git.

Languages

- Persian – Native.
- English – TOEFL iBT: 93 (R:28, L:21, S:22, W:22), Apr 2023.

References

Available upon request.