Mohammad Rezaalipour

Contact Information

Homepage https://mohrez86.github.io
GitHub https://github.com/mohrez86
Email rezaalipour.mohammad@gmail.com

Education

Sept. 2019 – Jun. 2024 **PhD degree, Informatics**, *Università della Svizzera italiana*, Switzerland

Sept. 2014 – Jan. 2017 **Master's degree, Software Engineering**, *Shahid Beheshti University*, Iran

Sept. 2004 – July 2009 **Bachelor's degree, Robotics Engineering**, *Shahrood University of Technology*, Iran

Work Experience

Sept. 2019 – Jun. 2024 **Research Assistant**, *Università della Svizzera italiana*, Switzerland
Researched debugging techniques for data science programs.

Jan. 2017 – Feb. 2019 **Research Assistant**, *Software Testing and Approval Lab. (TickSoft)*, Iran
Conducted research in the field of software testing.

July 2015 – Nov. 2015 **Supervisor Representative**, *Iranian National Tax Administration (INTA)*, Iran
Served as a supervisory representative in knowledge transfer and software testing meetings related to the Integrated Taxation System (ITS), a software designed for tax information management.

Apr. 2012 – Sept. 2013 **Instructor**, *Iran Technical & Vocational Training Organization*, Iran
Taught C# programming and computer networking.

Sept. 2010 – Sept. 2011 **Conscription Instructor**, *Iran Technical & Vocational Training Organization*, Iran
Taught C#, MATLAB, Microsoft Windows, and Microsoft Office applications.

Selected Publications

To see all my publications, visit my Google Scholar profile: https://t.ly/FmoZ2

- **EMSE:** Mohammad Rezaalipour, Carlo A. Furia. (2024). *"An Empirical Study of Fault Localization in Python Programs."* https://doi.org/10.1007/s10664-024-10475-3.
- **ICSME:** Mohammad Rezaalipour, Carlo A. Furia. *"aNNoTest: An Annotation-based Test Generation Tool for Neural Network Programs."*https://doi.org/10.1109/ICSME58846.2023.00075.
- **JSS:** Mohammad Rezaalipour, Carlo A. Furia. *"An annotation-based approach for finding bugs in neural network programs."*https://doi.org/10.1016/j.jss.2023.111669.
- **IEEE Transactions on Computers:** Morteza Rezaalipour, Mohammad Rezaalipour, Masoud Dehyadegari, Mahdi Nazm Bojnordi. *"AxMAP: Making Approximate Adders Aware of Input Patterns."* https://doi.org/10.1109/TC.2020.2968905.
- **FSEN:** Babak Bagheri, Mohammad Rezaalipour, Mojtaba Vahidi-Asl. *"An Approach to Generate Effective Fault Localization Methods for Programs."* https://doi.org/10.1007/978-3-030-31517-7_17.

Invited Talks

- *"An annotation-based approach for finding bugs in neural network programs."* **ICSME 2023**, Bogota, Colombia.
- *"aNNoTest: An Annotation-based Test Generation Tool for Neural Network Programs."* **ICSME 2023**, Bogota, Colombia.
- *"An Approach to Generate Effective Fault Localization Methods for Programs."* **FSEN 2019**, Tehran, Iran.
- *"Arselda: An Improvement on Adaptive Random Testing by Adaptive Region Selection."* **ICCKE 2018**, Mashhad, Iran.

Teaching Experience

Sept. 2019 – Jan. 2024 **Teaching Assistant**, *Università della Svizzera italiana*, Switzerland

- **Programming Fundamentals 1**, Fall 2023/2024
- **Programming Fundamentals 1**, Fall 2022/2023
- **Software Atelier 4: Software Engineering Project**, Spring 2021/2022
- **Programming Fundamentals 1**, Fall 2021/2022
- **Software Atelier 4: Software Engineering Project**, Spring 2020/2021
- **Programming Fundamentals 1**, Fall 2020/2021
- **Compiler Construction**, Spring 2019/2020
- **Programming Fundamentals 1**, Fall 2019/2020

Responsibilities: grading assignments, evaluating course projects, and actively participating in lab sessions to support students with their assignments and course projects.

Research Projects

- **FauxPy**: an automated fault localization tool for Python programs.
  GitHub Repository: `https://github.com/atom-sw/fauxpy`
- **FauxPy Experiments**: the replication package of our paper titled "An Empirical Study of Fault Localization in Python Programs" by Mohammad Rezaalipour and Carlo A. Furia.
  GitHub Repository: `https://github.com/atom-sw/fauxpy-experiments`
- **aNNoTest**: an automated test generation tool for finding bugs in neural network programs.
  GitHub Repository: `https://github.com/atom-sw/annotest`
- **aNNoTest Subjects**: an annotated collection of replicable bugs within deep neural network projects, intended for experimentation in automated test-case generation.
  GitHub Repository: `https://github.com/atom-sw/annotest-subjects`

Academic Service

- Artifact evaluation committee at FASE 2022, SEFM 2023, and PLDI 2024.
- Web Chair at iFM 2022, and iFM 2023.

Awards

- Ranked 81^{st} among 34,439 participants in the Iranian University Entrance Exam (Konkour) for admission to a master's program in Software Engineering.