Curriculum Vitae

Mahyar Karimi

Last revision on November 6, 2024

Contact Details

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Education

2023 –   **Ph.D. in Computer Science**,
Institute of Science and Technology, Klosterneuburg, Austria.
Advisor: Prof. Thomas Henzinger

Notable Coursework (full mark is 1/5):
Formalisms in CS: 1.0.

2018 –
2023   **B.Sc. in Computer Engineering**,
University of Tehran, Tehran, Iran.
Graduated as one of the top 10 students in my class.
Thesis advisor: Prof. Hossein Hojjat

Notable Coursework (full mark is 20/20):

Software testing:	19.4,	Database design:	19.1,
Distributed systems:	17.8,	Cyber-physical systems:	16.3,
Software engineering:	17.8,	Internet engineering:	18.4.

Research Experience

06.2023 –
09.2023   **Research intern,** Institute of Science and Technology Austria (ISTA)
Worked under the supervision of Prof. Thomas Henzinger,
on *Learner-Verifier frameworks for system reachability and safety.*

07.2022 –
09.2022   **Research intern,** Institute of Science and Technology Austria (ISTA)
Worked under the supervision of Prof. Thomas Henzinger,
on *Monitoring fairness of decision-making processes.*

2021 –
2023   **Research assistant**, University of Tehran
Collaborated with Prof. Hossein Hojjat and Amir Hossein Seyhani,
on *Causality in event structures.*

Industry Experience

2022–3   **Software engineer,** Divar.
Worked in teams *job finding* and *customer trust.*
Related skills: Microservices architecture, Django, CI/CD, Scrum, Kanban

2021   **Infrastructure intern,** Tapsell.
Implemented a simple query caching mechanism, with Redis as the cache.
Related skills: Kubernetes, Redis, Nginx, Docker

Teaching Experience

2020 – 2022   University of Tehran
Teaching assistant in the following courses:

- *Advanced Programming* (Lecturer: Prof. Ramtin Khosravi)
- *Data Structures* (Lecturer: Prof. Fathiyeh Faghih)

Extracurricular Coursework

05.2023   **Functional Program Design in Scala,**
Lecturer: Prof. Martin Odersky (EPFL).

03.2023   **Functional Programming Principles in Scala,**
Lecturer: Prof. Martin Odersky (EPFL).

11.2023   **Supervised Machine Learning: Regression and Classification.**
Lecturer: Prof. Andrew Ng (course offered by DeepLearning.AI).

Awards & Honors

2022   Research scholarship, granted by the Austrian Agency for Education and Internationalisation (OeAD-GmbH).

2022   Top 1% among all applicants to the ISTernship* program.
* ISTA summer internship

Publications

Refereed Conference Papers

[1] Thomas Henzinger, Mahyar Karimi, Konstantin Kueffner, and Kaushik Mallik. Runtime monitoring of dynamic fairness properties. In *Proceedings of the 2023 ACM Conference on Fairness, Accountability, and Transparency*, FAccT '23, page 604–614, New York, NY, USA, 2023. Association for Computing Machinery.

[2] Thomas A. Henzinger, Mahyar Karimi, Konstantin Kueffner, and Kaushik Mallik. Monitoring algorithmic fairness. In Constantin Enea and Akash Lal, editors, *Computer Aided Verification*, pages 358–382, Cham, 2023. Springer Nature Switzerland.