

Curriculum Vitae

Mahyar Karimi

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Contact Details

Post Am Campus 1, 3400 Klosterneuburg, Austria
Email mahyar.karimi2079@gmail.com

Education

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

2018 – **B.Sc. in Computer Engineering**,
2023 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,
Computer architecture:	20.0,	Operating systems:	19.5.

Research Experience

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

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

2021 – **Research assistant**, University of Tehran
2023 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 – University of Tehran
2022 Teaching assistant in the following courses:
- *Advanced Programming* (Lecturer: [Prof. Ramtin Khosravi](#))
 - *Data Structures* (Lecturer: [Prof. Fathiyeh Faghieh](#))

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.