

Ali Asadi

ali.asadi@ist.ac.at
asadia1376@gmail.com
Linkedin
Github
(+43) 677 6430 5276

EDUCATION

- **Ph.D. in Computer Science** 2021 – Present
Institute of Science and Technology Austria (ISTA), Klosterneuburg, Austria
Focusing on game theory, multi-agent artificial intelligence, and decision-making under uncertainty. In particular, I study stochastic games from an algorithmic perspective.
- **B. Sc. in Computer Engineering** 2016 – 2021
Sharif University of Technology, Tehran, Iran GPA: 18.93/20

HONORS AND AWARDS

- **Silver medal** in the 10th Asia-Pacific Informatics Olympiad (APIO) 2016
- **Gold and Silver medals** in the 25th and 24th Iranian National Olympiad in Informatics (INOI) 2014, 2015
- **2nd place** in the ACM-ICPC West Asia Regional Contest, Tehran, Iran. 2016
- Iranian National Elites Foundation grant for undergraduate studies 2014 – 2021
- Research Scholarship from the Austrian Exchange Agency (OeAD-GmbH) 2019

PUBLICATIONS AND PRE-PRINTS

- “Qualitative Analysis of ω -Regular Objectives on Robust MDPs”
Ali Asadi, Krishnendu Chatterjee, Ehsan Goharshady, Mehrdad Karrabi, Ali Shafiee
in *The 40th Annual AAAI Conference on Artificial Intelligence (AAAI’26)*.
- “Revealing POMDPs: Qualitative and Quantitative Analysis for Parity Objectives”
Ali Asadi, Krishnendu Chatterjee, David Lurie, Raimundo Saona
in *The 40th Annual AAAI Conference on Artificial Intelligence (AAAI’26)*.
- “ ϵ -Stationary Nash Equilibria in Multi-player Stochastic Graph Games”
Ali Asadi, Léonard Brice, Krishnendu Chatterjee, K. S. Thejaswini
in *the 45th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS’25)*.
- “Limit-sure reachability for small memory policies in POMDPs is NP-complete”
Ali Asadi, Krishnendu Chatterjee, Raimundo Saona, Ali Shafiee
in *the 41st Conference on Uncertainty in Artificial Intelligence (UAI’25)*.
- “Lower Bound on Howard Policy Iteration for Deterministic Markov Decision Processes”
Ali Asadi, Krishnendu Chatterjee, Jakob de Raaij
in *the 41st Conference on Uncertainty in Artificial Intelligence (UAI’25)*.
- “Concurrent Stochastic Games with Stateful-discounted and Parity Objectives: Complexity and Algorithms”
Ali Asadi, Krishnendu Chatterjee, Raimundo Saona, Jakub Svoboda
in *the 44th IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS’24)*.
- “Deterministic Sub-exponential Algorithm for Discounted-sum Games with Unary Weights”
Ali Asadi, Krishnendu Chatterjee, Raimundo Saona, Jakub Svoboda
in *the Proceedings of the 39th Annual Symposium on Logic in Computer Science (LICS’24)*, 2024.

- “Polynomial reachability witnesses via Stellensätze”

Ali Asadi, Krishnendu Chatterjee, Hongfei Fu, Amir Kafshdar Goharshady, Mohammad Mahdavi in *the Proceedings of the 42nd ACM SIGPLAN International Conference on Programming Language Design and Implementation (PLDI’21)*, 2021.

- “Faster Algorithms for Quantitative Analysis of MCs and MDPs with Small Treewidth”

Ali Asadi, Krishnendu Chatterjee, Amir Kafshdar Goharshady, Kiarash Mohammadi, Andreas Pavlogiannis in *the Proceedings of the 18th International Symposium on Automated Technology for Verification and Analysis (ATVA’20)*, 2020.

TEACHING EXPERIENCE

- **Teaching Assistant**

- Formal Methods: Algorithmic Approaches, Instructor: Prof. Krishnendu Chatterjee Spring 2024
- Data Structures and Algorithms, Instructor: Prof. Ali Sharifi-Zarchi Spring 2018
- Probability And Statistics, Instructor: Prof. Abolfazl Motahari Fall 2017

- **Member of Scientific Committee** of Programming Contests

Designed programming contests and authored problems with an algorithmic theme.

- Iran’s INOI Final Exams 2022 – Present
- Iran’s IOI Team Selection Exams 2017
- INOI Summer Camp Programming Exams 2016

- **Lecturer, Allameh Helli High School**

2016 – 2018

Taught Algorithms and Data Structures to students preparing for the National Olympiad in Informatics (INOI).

- **Lecturer, Allameh Tabatabaee High School**

2016 – 2019

Taught Algorithms and Data Structures to students preparing for the National Olympiad in Informatics (INOI).

UNDERGRADUATE RESEARCH EXPERIENCE

- **Research Intern and Remote Collaboration, IST Austria**

Summer 2019

Worked in the Chatterjee Group under the supervision of Prof. Krishnendu Chatterjee.

Scholarship awarded by the *Austrian Agency for International Cooperation in Education and Research* (OeAD-GmbH).

- **Research Assistant, Sharif University of Technology**

Feb. 2020 – Apr. 2021

Worked in the Theory Group under the supervision of Prof. Mohammad Ghodsi.

WORK EXPERIENCE

- **Engineering Manager, Divar Co.**

Sep. 2019 – Sep. 2021

- Led a team consisting of 10 software engineers.
- Redesigned and reimplemented the ads submission stack to improve scalability and functional flexibility.
- Contributed to the organization’s adoption of SRE practices and principles.

Skills: gRPC, Django REST Framework, GO, PostgreSQL, Python, Service Mesh, Kubernetes, Docker, Code Review, Quality Assurance, Distributed Caching, Software Design, Clean Coding, RestfulAPI

- **Software Engineer, CafeBazaar Co.**

July 2017 – July 2019

- Redesigned and reimplemented the payment service to improve scalability and performance.
- Implemented DevOps processes using Gitlab-CI and Kubernetes.
- Maintained a variety of high-scale services.