# Ali Asadi

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#### **EDUCATION**

### • Ph.D. in Computer Science

2021 - Present

IST Austria, Klosterneuburg, Austria

Focusing on game theory, multi-agent artificial intelligence, and decision-making under uncertainty. In particular, I study strategic behavior in uncertain, multi-agent environments from an algorithmic perspective.

### • B. Sc. in Computer Engineering

2016 - 2021

Sharif University of Technology, Tehran, Iran

GPA: 18.93/20

Selected Courses:

- o Stochastic Processes
- Combinatorial Optimization
- Statistics and Applications
- o Online Learning

- Algorithmic Game Theory
- Probability and Statistics
- o Linear Algebra
- $\circ \ \ {\rm Artificial \ Intelligence}$

#### Honors and Awards

• Silver medal in the 10<sup>th</sup> Asia-Pacific Informatics Olympiad (APIO)

2016

- Gold and Silver medals in the 25<sup>th</sup> and 24<sup>th</sup> Iranian National Olympiad in Informatics (INOI) 2014,2015
- 2<sup>nd</sup> place in the ACM-ICPC West Asia Regional Contest, Tehran, Iran.

2016

#### 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.

## Publications and Pre-prints

"Deterministic Sub-exponential Algorithm for Discounted-sum Games with Unary Weights"
Ali Asadi, Krishnendu Chatterjee, Raimundo Saona, Jakub Svoboda
in the Proceedings of the 39<sup>th</sup> 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 42<sup>nd</sup> 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 18<sup>th</sup> International Symposium on Automated Technology for Verification and Analysis (ATVA'20), 2020.

- "Concurrent Stochastic Games with Stateful-discounted and Parity Objectives: Complexity and Algorithms" Ali Asadi, Krishnendu Chatterjee, Raimundo Saona, Jakub Svoboda to appear in the 44<sup>th</sup> IARCS Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS'24).
- "Limit-sure Winning with Small Memory Policies in POMDPs with Reachability objectives: Complexity and Symbolic Algorithm"

**Ali Asadi**, Krishnendu Chatterjee, Raimundo Saona, Ali Shafiee Submitted to the 39<sup>th</sup> Annual AAAI Conference on Artificial Intelligence (**AAAI'25**).