# Ali Asadi

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#### **EDUCATION**

• Ph.D. in Computer Science IST Austria, Klosterneuburg, Austria 2021 – Present

• B. Sc. in Computer Engineering Sharif University of Technology, Tehran, Iran 2016 - 2021 GPA: 18.93/20

# PEER-REVIEWED CONFERENCE PUBLICATIONS

- "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 ACM/IEEE 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 18<sup>th</sup> International Symposium on Automated Technology for Verification and Analysis (ATVA'20), 2020.

## Under-Preparation Papers

- "Concurrent Stochastic Games with Stateful-discounted and Parity Objectives: Complexity and Algorithms"
   Ali Asadi, Krishnendu Chatterjee, Raimundo Saona, Jakub Svoboda
   Submitted to 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).

- "Qualitative Analysis of Robust MDPs with LTL Specifications"

  Ali Asadi, Krishnendu Chatterjee, Ehsan Kafshdar Goharshady, Mehrdad Karrabi, Ali Shafiee

  Under preparation
- "A Lower bound for Howard's Algorithm for Deterministic MDPs with Mean-payoff Objectives" **Ali Asadi**, Krishnendu Chatterjee, Jakob de Raaij Under preparation

#### Honors and Awards

• Silver medal in the 10 <sup>th</sup> Asia-Pacific Informatics Olympiad (APIO)	2016
• Gold medal in the 25 <sup>th</sup> Iranian National Olympiad in Informatics (INOI)	2015
$\bullet$ Silver medal in the $24^{\mathrm{th}}$ Iranian National Olympiad in Informatics (INOI)	2014
• ISTA Ph.D. Fellowship	2021
• 2 <sup>nd</sup> place in the ACM-ICPC West Asia Regional Contest, Tehran, Iran.	2016
• Iranian National Elites Foundation grant for undergraduate studies	2014 - 2021
• National Organization for Development of Exceptional Talents (NODET) member	2009 - 2016
	2019

## Work Experience

• Engineering Manager, Divar Co.

Sep. 2019 – Sep. 2021

Led a team consisting of 10 software engineers in setting up infrastructure platforms and tools.

• Software Engineer, CafeBazaar Co.

July 2017 - July 2019

Contributed to the design, development, and maintenance of several systems and microservices.

## 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.

# TEACHING EXPERIENCE

# • Teaching Assistant

o Formal Methods: Algorithmic Approaches, Instructor: Prof. Krishnendu Chatterjee

Spring 2024

o Data Structures and Algorithms, Instructor: Prof. Ali Sharifi-Zarchi

Spring 2018

o 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.

o Iran's INOI Final Exams

2022 - Present

o 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).

#### OTHER ACTIVITIES

• Elected Member and Vice President of Students' Scientific Chapter

2018 - 2019