

# Vahid Balazadeh

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University of Toronto  
Department of Computer Science

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## EDUCATION

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- PhD Direct-Entry in Computer Science** Sep. 2021 – Nov. 2026 (Exp.)  
*University of Toronto* Toronto, Canada  
Machine Learning for Healthcare, supervised by: [Rahul G. Krishnan](#)
- B.Sc. in Computer Engineering and Mathematics (Double Major)** Sep. 2015 – Sep. 2020  
*Sharif University of Technology* Tehran, Iran

## PUBLICATIONS

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1. **Vahid Balazadeh**, Vasilis Syrgkanis, Rahul G. Krishnan, "[Partial Identification of Treatment Effects with Implicit Generative Models](#)", *Advances in Neural Information Processing Systems*, (**Spotlight - NeurIPS 2022**).
2. **Vahid Balazadeh**, Abir De, Adish Singla, and Manuel Gomez Rodriguez, "[Learning to Switch Among Agents in a Team via 2-Layer Markov Decision Processes](#)", *Transactions on Machine Learning Research*, (**TMLR 2022**).

## PROFESSIONAL EXPERIENCE

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- University of Toronto & Vector Institute** Sep. 2021 – Present  
*Graduate Student Researcher* Toronto, Canada  
– Research on partial identification of causal effects and causal discovery. Started exploring applications of causal inference in imitation learning and reinforcement learning.
- Causal Inference Lab at Vector Institute** May 2023  
*Lecturer and Technical Facilitator* Toronto, Canada  
– Gave a lecture on causal effect estimation and causal graph discovery to data scientists from companies such as Air Canada, Bell, Deloitte, RBC, etc.
- Cafe Bazaar** Sep. 2020 – Aug. 2021  
*Data Scientist at Video Team* Tehran, Iran  
– Worked on optimizing video watch time and automated mid-roll ad breaks
- Max Planck Institute for Software Systems** Jul. 2019 – Sep. 2020  
*Research Internship*, supervised by: [Manuel Gomez Rodriguez](#) Kaiserslautern, Germany  
– Worked on reinforcement algorithms for teams with multiple agents; proposed a theory of 2-layer MDPs for optimal switching policies
- Sharif University of Technology** Jul. 2018 – Jun. 2019  
*Research assistant* Tehran, Iran  
– Implemented a library in R language for multivariate analysis and visualization (muvis)

## TALKS

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- Partial Identification of Treatment Effects, **Imperial College London**, Remote. 2023
- Causal Effect Estimation and Potential Outcomes, **Vector Institute**, Toronto, Canada. 2023
- Partial Identification of Treatment Effects, **NeurIPS**, Remote. 2022
- Learning to Switch Between Humans and Machines, **Georgia Tech**, Remote. 2021

## PREPRINTS

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1. Hamidreza Kamkari, Vahid Zehtab, **Vahid Balazadeh**, and Rahul G. Krishnan, "OCDaf: Ordered Causal Discovery with Autoregressive Flows", *arXiv preprint arXiv:2308.07480*, 2023.
2. Eleni Straitouri, Adish Singla, **Vahid Balazadeh**, and Manuel Gomez Rodriguez, "Reinforcement learning under algorithmic triage", *arXiv preprint arXiv:2109.11328*, 2021.
3. Elyas Heidari, **Vahid Balazadeh**, and Ali Sharifi-Zarchi, "Multivariate analysis and visualization using R package muvis", *arXiv preprint arXiv:1810.12184*, 2018.

## AWARDS

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- NeurIPS 2022 Scholar Award 2022
- Vector Research Grant 2021, 2022
- Admission with full scholarship to MPI-SWS Summer Internship, Germany Summer 2019
- Ranked 3<sup>rd</sup> among more than 180,000 participants in the Iranian Nation-wide University Entrance Exam 2015
- Recipient of the Grant for undergraduate studies from the Iranian National Elites Foundation 2015 –2020

## TEACHING EXPERIENCE

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- **University of Toronto**
  - Introduction to Machine Learning Winter 2023, Summer 2023
  - [Topics in Machine Learning: Introduction to Causality \(Head-TA\)](#) Fall 2022
  - Artificial Intelligence Winter 2022, Fall 2023
  - Introduction to Programming Fall 2021
- **Sharif University of Technology**
  - Stochastic Processes Spring 2019
  - Linear Algebra Fall 2018
  - Engineering Probability and Statistics Spring, Fall 2018

## SERVICE / (PROGRAMMING) LANGUAGES

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- **Reviewer:** AAAI 2021, CHILL 2022, NeurIPS 2022/2023, ML4H 2022, ICLR 2024
- **Programming:** Python (PyTorch, JAX, pandas, PySpark), Mathematica, R, JavaScript
- **Languages:** English, Persian, Azerbaijani