

Arian Hashemzadeh Amirkhizi

PERSONAL DATA

DATE OF BIRTH: 5 August 2000
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RESEARCH INTERESTS

Graphical Models, Causal Inference, Canonical Correlation Analysis, Probabilistic Modeling

EDUCATION

Sep 2023 - Present	University of Toronto, Toronto, Canada Ph.D. in Statistics Advisors: Dr. Piotr Zwiernik and Dr. Elena Tuzhilina
Sep 2018 - July 2023	Sharif University of Technology, Tehran, Iran B.Sc in Applied Mathematics Cumulative GPA: 16.08/20 Last two years: 17.52/20

RESEARCH EXPERIENCE

JUL 2024 – AUG 2024	Research Supervisor – University of Toronto Summer School Research Program (UTSSRP), Toronto, Canada Co-supervised a group of 4 undergraduate students with Dr. Elena Tuzhilina on the project “ <i>Dimensionality reduction and clustering techniques for Hi-C genomic data analysis</i> ”, culminating in a poster presentation.
MAY 2022 – DEC 2023	Research Assistant Visitor – Bayesian AI Lab, Queen Mary University of London Studied the effects of lockdowns on the spread of COVID-19 in the United Kingdom under the supervision of Dr. Anthony Constantinou .
JAN 2022 – DEC 2022	Undergraduate Researcher – ETH Zürich Worked under the supervision of Dr. Mona Azadkia on estimating total effect via covariate adjustment in causal structures.
JUL 2021 – JAN 2023	Undergraduate Researcher (B.Sc. Thesis) – University College London & Sharif University of Technology Supervised by Dr. Kayvan Sadeghi and Dr. Javad Ebrahimi ; developed a constraint-based structure learning algorithm based on the conditions of faithfulness.

PUBLICATIONS

Open problems in causal structure learning: A case study of COVID-19 in the UK
Authors: AC Constantinou, R Mbuva, NK Kitson, K Chobtham, Y Liu, A Hashemzadeh, P Nanavati

Journal: Expert Systems with Applications 234, 121069

HONORS

2018	Ranked top 0.5% (240 among 50,000 students) in district 3 of the National University Entrance Exam
2018	Awarded Full Scholarship, Undergraduate Program at Sharif University
2021	Ranked 35 among more than 2,000 participants in Graduate University Entrance Examination for mathematical sciences
2023	Ranked 16 among more than 2,100 participants in Graduate University Entrance Examination for mathematical sciences

RELEVANT COURSEWORK

Undergraduate Courses

Regression Analysis	A
Stochastic Processes	A
Linear Algebra	A+
Algebra I	A
Probability	A
Statistics	A
Math Writing	A+

Graduate Courses

Information Theory	A-
Systems Dynamics	A
Game Theory	A+
Advanced Computational Methods for Statistics I	B+
Advanced Computational Methods for Statistics II	A-
Coding Theory	B+

TEACHING ASSISTANT

2023 – 2026

University of Toronto

STA130: Introduction to Statistics (2 terms, [Dr. Nathalie Moon](#))

STA221: The Practice of Statistics II ([Dr. Jessie Yeung](#))

STA220: The Practice of Statistics I ([Dr. Jessie Yeung](#))

STA238: Probability, Statistics and Data Analysis II (2 terms, [Michael Moon](#), [Fred Song](#))

STA257: Probability and Statistics I ([Dr. Omidali A. Jazi](#))

STA302: Methods of Data Analysis I ([Dr. Katherine Daignault](#))

STA303: Methods of Data Analysis II ([George Stefan](#))

STA314: Statistical Methods for Machine Learning I ([Junhao Zhu](#))

STA437: Methods for Multivariate Data ([Dr. Elena Tuzhilina](#))

STA447: Stochastic Processes (Instructor TBA)

2020 – 2022

Sharif University of Technology

Statistics and Probability for Engineering (2 terms, [Dr. Naeemeh Omidvar](#), [Dr. Sayyed Mohammad Karbasi](#), Head TA with [Dr. Mehri Oghbaie](#))

Probability and Its Applications (2 terms, [Dr. Milad Barzegar](#), [Dr. Hamidreza Fanai](#))

Statistics and Its Applications ([Dr. Javad Ebrahimi](#))

Stochastic Processes ([Dr. Milad Barzegar](#))

Graphical Models (graduate-level, [Dr. Mehdi Molkaeie](#) & [Dr. Arash Amini](#))

TEACHING EXPERIENCE

2019 - 2021

Private tutor of high school mathematics

preparing senior high school students for Persian National University Entrance Exam

2021 - 2023

Private tutor of junior high students

preparing them to take the Cambridge IGCSE Mathematics test

COMPUTER SKILLS

PYTHON, JAVA, R, \LaTeX

LANGUAGES

PERSIAN : Native

ENGLISH : TOEFL: 104/120

FRENCH : Conversational Level

OTHER ACTIVITIES

- Participated as a panelist (2024, 2025) providing guidance and best practices for first-year graduate students on how to effectively serve as teaching assistants (Department of Statistical Sciences, University of Toronto)
- Volunteered as Executive Staff at [Sharif Data Days](#) 2021 event