Zaheen Farraz Ahmad

CONTACT Information 1206-11147 82 Ave NW Edmonton, AB, T6G 0T5 Email: zfahmad@ualberta.com

RESEARCH INTERESTS My research interests lay in artificial intelligence with a focus on combinatorial search, planning, machine learning and reinforcement learning.

EDUCATION

University of Alberta, Edmonton, Alberta, Canada

Ph.D., Computing Science, 2017 - 2024
• Advisors: Michael Bowling, Levi Lelis

University of Alberta, Edmonton, Alberta, Canada

M.Sc., Computing Science, 2017

• Thesis Topic: "Action Selection for Hammer Shots in Curling: Optimization of Non-convex Continuous Actions With Stochastic Action Outcomes"

• Advisor: Robert C. Holte

Islamic University of Technology, Gazipur, Dhaka, Bangladesh

B.Sc.Engg., Computer Science and Engineering, 2012

ACADEMIC EXPERIENCE University of Alberta, Edmonton, Alberta, Canada

Graduate Research Assistant Fellow

May, 2017 - Present

Teaching Assistant

Sep, 2013 - Dec, 2020

- CMPUT 101 Introduction to Computing
- CMPUT 175 Introduction to the Foundations of Computation II

Professional Experience AB Sciex Pte. Ltd.

Data Science Consultant

Dec, 2017 - Feb, 2018

Islamic University of Technology, Gazipur, Dhaka, Bangladesh

Lecturer Dec, 2012 - Jul, 2013

Honors and Awards Graduate Student Teaching Award, 2018

Award for outstanding teaching performance as a Graduate student

IUT Gold Medal Award, 2012

Award for graduating with the highest GPA in the department at the Islamic University of Technology

SCHOLARSHIPS

IUT Scholarship, 2008

Scholarship for covering 3 years of academic tuition at the Islamic University of Technology.

ACADEMIC SERVICES

Program Committee

NeurIPS (2022, 2023) AAAI (2022, 2023) ICML (2023, 2024) ICLR 2024

University of Alberta

Vice-President.	Computing	Sajanaa	Craduata	Student	Aggagiation	2015
vice-President.	Computing	Science	Graduate	Student	Association	2019

Islamic University of Technology

Treasurer, IUT Computing Society	2012
Organizing Member, National ICT Fest	$\boldsymbol{2012}$

OUTREACH

University of Alberta

Presenter, Iverson Day demos for high school students 2014 - 2019 Panelist, WP Wagner Panel on further education for high school students. 2015

Publications

Refereed Journals

- [1] Milson, N., Tashchilina, A., Ooi, T., Czarnecka, A., **Ahmad, Z.F.**, LeBlanc, L.J., "High-dimensional reinforcement learning for optimization and control of ultracold quantum gases", *Machine Learning: Science and Technology.* 2023
- [2] Durksen, T.L., Chu, Man-Wai., **Ahmad, Z.F.**, Radil, A.I., Daniels, L.M., "Motivation in a MOOC: a probabilistic analysis of online learners' basic psychological needs", *Social Psychology of Education*, pp.1-10. 2016

Refereed Conferences

- [1] Sokota, S., Ho, C., **Ahmad, Z.F.**, Kolter, J.Z., "Monte Carlo Tree Search With Iteratively Refining State Abstractions", *NeurIPS* 2021.
- [2] **Ahmad, Z.F.**, Lelis, L.H.S., Bowling, M., "Marginal Utility for Planning in Continuous and Large Discrete Action Spaces", *NeurIPS 2020*
- [3] **Ahmad, Z.F.**, Holte, R., Bowling, M., "Action Selection for Hammer Shots in Curling", *IJCAI 2016*.

Other Publications

- [1] **Ahmad, Z.F.**, "Action Selection for Hammer Shots in Curling: Optimization of Non-convex Continuous Actions With Stochastic Action Outcomes" *M.Sc. Thesis, Department of Computing Science, Islamic University of Alberta.* 2017
- [2] Durksen, T.L., Chu, Man-Wai., **Ahmad, Z.F.**, Radil, A.I., Daniels, L.M., "Probabilistic analysis of academic engagement: Exploring student motivation through a massive open online course" (Abstract only), Australian Association for Research in Education and New Zealand Association for Research in Education. 2014
- [3] **Ahmad, Z.F.**, Hossain, M.Md., "Communication Requirements for Safety Applications in Low Visibility for VANETs" *B.Sc. Thesis, Department of Computer Science and Engineering, Islamic University of Technology.* 2012