

Mahya Jamshidian

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Canadian Permanent Resident

OBJECTIVE	<i>Honours computer science Ph.D. candidate with a strong background in Combinatorial Optimization, Algorithm Design, and Complexity Theory.</i>
EDUCATION	<p>University of Alberta, Canada, Alberta, Edmonton <i>Doctor of Philosophy, Theoretical Computer Science</i> September 2022 - Present</p> <p>University of Alberta, Canada, Alberta, Edmonton <i>Master of Science, Theoretical Computer Science</i> September 2020 - August 2022 Thesis: Approximation Algorithms for Clustering with Minimum Sum of Radii, Diameters, and Squared Radii , <i>Under the supervision of Dr. Zachary Friggstad</i></p> <p>Isfahan University of Technology, Isfahan <i>Bachelor of Engineering, Computer Engineering(CSE)</i> September 2016 - August 2020 Thesis: Open problems in Quantum Communication Complexity, <i>Under the supervision of Dr. Ramin Javadi</i></p>
PUBLICATIONS	<ul style="list-style-type: none">● A Constant-Factor Approximation for Pairwise Fair k-Center Clustering Sayan Bandyapadhyay, Tianzhi Chen, Zachary Friggstad, Mahya Jamshidian, IPCO 2025● A Polynomial-Time Approximation for Pairwise Fair k-Median Clustering Sayan Bandyapadhyay, Eden Chlamt, Zachary Friggstad, Mahya Jamshidian, Yury Makarychev, and Ali Vakilian In submission in AAAI 2026● Improved Polynomial-Time Approximations for Clustering with Minimum Sum of Radii or Diameters Zachary Friggstad, Mahya Jamshidian ESA 2022● BoxOff is NP-Complete Ryan Hayward, Robert Hearn, Mahya Jamshidian, ACG 2021● The Neglected Bi-Threshold Aspect of Human Decision-Making: Equilibrium Analysis Mahya Jamshidian, Zeinab Maleki, Pouria Ramazi, 2021 60th IEEE Conference on Decision and Control (CDC)
WORK EXPERIENCE	<ul style="list-style-type: none">● Information System Tester Apadana Computing, 2017-2018● C/C++ Developer Apadana Computing, 2019-2020● Research Assistant at University of Alberta Under the supervision of Dr. Zachary Friggstad , Since 2021● Summer Internship in the Institute of Artificial Intelligence Under the supervision of Dr. Mohammed Reza Heidarpour and Dr. Mohammed Hossein Manshaei, Summer 2019

- **Data Science Specialist at Neolyze Startup**

Natural Language Processing for unsupervised Audience Interest extraction

Demography extraction from text; like age, gender, and language

Community Detection in Instagram Social Network

**NOTABLE
PROJECTS AND
CERTIFICATES**

- **Developed Fair-Clustering Algorithms with k -median and k -means objectives**

- **IBM Certified Associate Developer - Quantum Computation using Qiskit v0.2X** *Fall 2023*

- **Quantum Classic and Modern Error Correction Codes**

- **Reinforcement Learning in Python using pygame (Educative Platform to Learn RL)**

- **Helmet Detection for Work Environments Using Yolo-V3**

**TECHNICAL
SKILLS**

Languages: Python, C++, C, Java, MATLAB, R, Qiskit, QuTiP, Kotlin

Tools: Gurobi, CPLEX, Xpress

Peer-Reviewed: SoCG, Neurips, ICGA, CALDAM,

**TEACHING
EXPERIENCE**

- **Discrete Mathematics - CMPUT 272**

University of Alberta

Winter 2021

- **Algorithms II - CMPUT 304**

University of Alberta

Fall 2021, 2022, 2023, 2024

- **Combinatorial Game Theory - CMPUT 497/670**

University of Alberta

Winter 2022

- **Theory of Computation - CMPUT 474**

University of Alberta

Winter 2023,2024,2025