

# Mahya Jamshidian

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## EDUCATION

**University of Alberta**, Canada, Alberta, Edmonton  
*Doctor of Philosophy*, Theoretical Computer Science  
September 2022 - Present

**University of Alberta**, Canada, Alberta, Edmonton  
*Master of Science*, Theoretical Computer Science  
September 2020 - August 2022

**Thesis:** Approximation Algorithms for Clustering with Minimum Sum of Radii, Diameters, and Squared Radii , *Under the supervision of Dr. Zachary Friggstad*

**Isfahan University of Technology**, Isfahan  
*Bachelor of Engineering*, Computer Engineering(CSE)  
September 2016 - August 2020

**Thesis:** Open problems in Quantum Communication Complexity, *Under the supervision of Dr. Ramin Javadi*

## PUBLICATIONS

● **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)

## NOTABLE PROJECTS AND PRESENTATIONS

- **Quantum Optimizer for Weighted Max-Cut problem**
- **Quantum Simulator for basic operations and gates**
- **Quantum Error Correction**  
*for Quantum Computing course*
- **Developed Classic and Modern game** *For the purpose of teaching young adults to programming in C#.*

## TECHNICAL SKILLS

**Languages:** Python, C++, C, C#, Java, MATLAB, R, Qiskit, QuTiP  
**Database:** MySQL, PostgreSQL, GraphQL, ElasticSearch, Neo4j  
**Tools:** Unity3D, Unreal, Javascript, Verilog, OpenMP

## TEACHING EXPERIENCE

● **Theory of Computation Teaching Assistant**  
Lecturer [Dr. Hossein Falsafain](#)  
*Winter 2019 and Winter 2020*

● **Design and Analysis of Algorithms Teaching Assistant**  
Lecturer [Dr. Zeinab Maleki](#)  
*Winter 2020*

● **Discrete Mathematics - CMPUT 272**  
University of Alberta  
*Winter 2021*

● **Algorithms II - CMPUT 304**

University of Alberta  
*Fall 2021, Fall 2022, and Fall 2023*

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

University of Alberta  
*Winter 2022*

● **Theory of Computation - CMPUT 474**

University of Alberta  
*Winter 2023*

**EXTRA-  
CURRICULAR  
ACTIVITIES**

- Vice Chair in Computer Engineering Scientific and Student Association ([CESSA](#)) 2017-2019
- Editor-in-Chief for [Hypertext](#) exclusive magazine issue no. 10 2018
- Recipient of academically elite-cultural activist student of the year award at IUT 2019

**LANGUAGE**

- **Persian:** Native
- **English:** Fluent
- **French:** Intermediate