# Amir **Eskandari**

Kingston, Canada

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## **Education**

Queen's University	Kingston, Canada
PhD in School of Computing - BAM Lab	Sept. 2023 -
<ul> <li>Average : 4.3/4.3</li> <li>Supervisor: Dr. Farhana Zulkernine</li> </ul>	
Amirkabir University of Technology (AUT) - (Tehran Polytechnic)	Tehran, IRAN
M.Sc. in Electrical Engineering (Communication Systems)	Sept. 2020 - Mar. 2023
<ul> <li>Average : 17.97/20 via 26 credits (Ranked 2<sup>th</sup>)</li> <li>Thesis: "Reconstruction of Missing Data of Environmental Sensors with Graph Neural Networks" (19.25/20) (excellent)</li> <li>Supervisor: Dr. Vahid Pourahmadi</li> </ul>	
Imam Khomeini International University (IKIU)	Qazvin, IRAN
<ul> <li>B.Sc. IN ELECTRICAL ENGINEERING (CONTROL SYSTEMS)</li> <li>Average : 17.79/20 via 143 credits (Ranked 2<sup>th</sup>)</li> <li>Thesis: "Designing PID Controllers By Deep Reinforcement Learning" (19.25/20) (excellent)</li> <li>Supervisor: Dr. Mehdi Rahmani</li> </ul>	July 2016 - Aug. 2020

- **Research Interests** 
  - Graph Machine Learning

• Knowledge Representation and Retrieval

• Large Language Models and AI Reasoning

## Publication\_

Submitted (ICASSP	"SDA-GRIN for Adaptive Spatial-Temporal Multivariate Time Series Imputation", A.Eskandari, A.Aanad,
2025)	D.Sharma, F.Zulkernine
Submitted (ICASSP	"Self-Supervised Keypoint Detection with Distilled Depth Keypoint Representation", A.Aanad, E.Rashno,
2025)	A.Eskandari, F.Zulkernine
Submitted (ACM	"Survey: Transformer-based Models in Multimodal Data Processing", E.Rashno, A.Eskandari, A.Aanad,
Survey)	F.Zulkernine
IEEE FMLDS 2024	"GN2DI: A Scalable Graph Neural Network Framework for Spatial Missing Data Imputation in Sensor
	Networks", A.Eskandari, S.Jamshidiha, V.Pourahmadi

## Experience\_

#### Connected Minds CFREF

PHD TRAINEE
 Exploring the development of a Chatbot Assistant specifically designed for the elderly population.
 School of Computing, Queen's University
 RESEARCH AND TEACHING ASSISTANT
 Focus on ChatBot communication and Dialog systems.
 Working on the alignment of LLMs and Knowledge Graphs for knowledge retrieval.

#### iThermAl

AI ENGINEER, COMPUTER VISION ENGINEER

- Research on Vision Based Algorithm for Fire and Smoke Detection, such as YOLOv5.
- MLops and Devops

#### University of New South Wales Sydney (UNSW), School of Biomedical Eng.

RESEARCH INTERNSHIP

- Working on applying Graph Neural Networks on Bioinformatics tasks.
- Working on developing a method for gene-disease prioritization.

Kingston, Canada May. 2024 - Present

#### Kingston, Canada Sep. 2023 - Present

Herent, Belgium/Remote Jan. 2023 - Aug. 2023

Kensington, Australia / Remote Aug. 2022 - Jan. 2023

## Amirkabir University of Technology (AUT) - (Tehran Polytechnic)

Research Assistant

- Dedicated Research on Deep Learning in particular Graph Neural Networks.
- Working on applying Graph Neural Networks on Multivariate Time Series tasks.
- Modeling Missing values challenges of IoT Sensor Networks as Spatial-Temporal problems.
- Focused Study on Graph Neural Networks both in theories and applications.

# Teaching Experience

## CISC 101 - Introduction to Programming

Teacher Assistant (TA) in Queen's

• Instructor: Dr. Wendy Powley

## CISC 839 - Data Analytics

Teacher Assistant (TA) in Queen's

Instructor: Dr. Hazem Abbas

## **Digital Systems I**

Teacher Assistant (TA) in IKIU

• Instructor: Dr. Seyed Ali Hosseini

# Selected Academic Courses

W, 2023	Statistical Learning II, A+	Queen's
F, 2023	Deep Learning, A+	Queen's
F, 2023	Reinforcement Learning, A+	Queen's
F, 2023	Automatic Planning, A+	Queen's
SP, 2021	Machine Learning, 20/20	EE Dept. AUT
F, 2021	Data Mining, 20/20	CS Dept. AUT
F, 2021	Statistical Learning Theory, 19.4/20	EE Dept. AUT

## Technical Skills\_

ProgrammingPython, C/C++, R, Matlab, LaTeX, MySQL, Linux Shell Script, Docker, CI/CD, HTMLLibrariesPyTorch, Tensorflow, Numpy, Pandas, Scikit-Learn, Pytorch Lightening, Pytorch GeometricToolsVersion Controlling (GIT), GitHub, VIM, Jupyter Notebook, VS Code, MS Words

# Program Committees

2024 Judge, CUCAI 2024 - Canadian Undergraduate Conference on AI 2024 power by Connected Minds

Kingston, Ontario

Kingston, Ontario Fall, 2024

Kingston, Ontario Winter, 2024

Qazvin, IRAN Spring Semester, 2020