

Vahidreza Niazmand

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[LinkedIn Profile](#)

Education

Master of Science – Computer Science **Sep 2022-Now**

Memorial University of Newfoundland, St John's, Canada

- GPA: 4/4
- Current project: Involves training and testing Convolutional Neural Networks for image tagging in Python using PyTorch

Bachelor of Science – Computer Software Engineering **Sep 2016-2021**

Shiraz University, Shiraz, Iran

- Graduation Date: July 2021
- Dissertation: Developing a hybrid recommender system using Deep Learning and Matrix Factorization

Experience

Teaching Assistant **2022**

Memorial University of Newfoundland, St John's, Canada

- Courses: Computational Complexity, Ad Hoc Networks, Introduction to Programming, Data Structures and Algorithms
- Helped students with their studies by answering their technical questions
- Collaborated with the course instructors
- Reviewed and marked course assignments

Research Assistant **2022-**

Optimizing convolutional neural networks' computing performance for a network of autonomous vehicles

Memorial University, St John's, Canada

Supervisor: Dr. Qiang Ye

Research Assistant **2021**

Using Reinforcement Learning in controlling blood glucose level

Shiraz University, Shiraz, Iran

Supervisor: Dr. Ramin Vatankhah

- Collaborated with two other members of the team to develop a simulation environment based on blood glucose mechanical dynamic model in **Python**

- Trained and tested a **Reinforcement Learning** agent based on Normalized Advantage Functions using **PyTorch** and Optuna
- Reviewed and summarized over 30 related and similar works

Research Assistant

2020

Using Deep Learning and Matrix Factorization to develop a hybrid recommender system for movies ([link](#), [doc](#))

Shiraz University, Shiraz, Iran

Supervisor: Dr. Reza Boostani

- Conducted data cleaning and feature engineering on MovieLens dataset
- Performed NLP techniques (BoW, tf-idf, LSA) for feature encoding
- Trained and tested a neural network based on Google's "Deep and Wide" method to merge sparse and dense features

Front-end Web and Mobile Developer ([link](#),[mail](#))

2019-2021

Mehr Ketab Ghasedak, Shiraz, Iran

- Developed android and ios mobile app using React Native ([link](#))
- Developed an admin panel using React

Voluntary Experience

- **Program Committee Member for:** CANAI 2023, BigCom2023 and ICCCN2023 conferences
- **Peer Reviewer for:** Wireless Networks Journal

Selected Graduate Courses

- **Applied Algorithms:** 100/100
- **Algorithmic Techniques in A.I.:** 96/100
- **Research Methods in Computer Science:** 94/100

Computer Skills

- **Advanced Programming:** Python, JavaScript, HTML, CSS, SQL
- **Packages:** Pytorch, SKLearn, Pandas, Numpy, React, React Native
- **Tools:** Git, GitHub Copilot, VS Code, LATEX, Jupyter Notebook, Google Colab

Publications

- Raheb, M. A., **Niazmand, V. R.**, Eqra, N., & Vatankhah, R. (2021). Subcutaneous insulin administration by deep reinforcement learning for blood glucose level control of type-2 diabetic patients. Journal of Computers in Biology and Medicine ([Link](#))

Selected Projects

- UC Berkeley Pacman game A.I. agent project series (Python) ([link](#)) **2021**
- Snake game Deep RL agent ([link](#)) **2020**
- Deep RL agent for a strategic game in Sharif A.I. Challenge (Python, TensorFlow) ([link](#)) **2020**

Test Scores

- IELTS Academic: Band **8** (Listening: **9**, Reading: **8.5**, Speaking: **7.5**, Writing: **7**)
 - Test date: June 2021
- GRE General: **324** (Quantitative: **164**, Verbal: **160**)

Language

- Persian: Maternal
- English: Fluent (C1)