Mandana Samiei

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EDUCATION

MCGILL UNIVERSITY, MILA
P.HD. IN COMPUTER SCIENCE
2020-2024 | Montreal, Canada
CGPA: 4.00/4.00

CONCORDIA UNIVERSITY
M.SC. IN COMPUTER SCIENCE
2017-2020 | Montreal, Canada
GPA: 4.02/4.30

SHAHID BEHESHTI UNIVERSITY
B.SC. IN COMPUTER ENGINEERING
2012-2016 | Tehran, Iran
GPA: 17.22 / 20 Ranked 3^{rd}

BAHARE ELM AMOUZAN
DIPLOMA IN MATHEMATICS & PHYSICS, 2008-2012 | TEHRAN, IRAN
GPA: 19.91/20 Ranked 1^{st}

RESEARCH INTERESTS

Bio-Inspired Learning• Cognitive Science•Theory of Mind• RL in Developmental Psychology• RL Theory• Bi-level Optimization

COURSEWORK

COURSERA
The Science of Everyday Thinking at University of Queensland •
Machine Learning at Stanford

GRADUATE
Reinforcement Learning & Applied Machine Learning at McGill• Autonomous Vehicles (Duckietown) & Representation Learning at UdeM• Image Processing at Concordia.

UNDERGRADUATE
Data Structures and Algorithms• Probability and Statistics•Calculus Linear Algebra•Trigonometry•Operating Systems• Artificial Intelligence •Theory of Machines and Languages•Signals and Systems•Object Oriented Programming.

CERTIFICATION
Deep Learning & Reinforcement Learning Summer School(DLRLSS) at UofA • Intro to Python for Data Science at DataCamp.

SKILLS

PROGRAMMING
Pyhton • Java • C++ • Matlab• Shell & bash scripting

TOOLS & IDES
Pytorch•Keras•OpenAI Gym•OpenCV •Jupyter Notebook•Pycharm •NetBeans

EXPERIENCE

MILA | RESEARCH INTERN IN META-LEARNING AND GENOMICS
Oct 2018 - Aug 2019 | Montreal, QC
Worked with **Joseph Paul Cohen** building a Benchmark of TCGA clinical tasks for developing a meta-learning framework for gene-expression data. Presented the work at DLRLSS (available on **Github**).

THINK SURGICAL | RESEARCH INTERN
Jul 2018 – Oct 2018 | Montreal, QC
Awarded M.Sc. **Mitacs** Scholarship for my internship project• Worked with **Stefan Seefeld** & **Sunil Rottoo** measuring geometrical metrics and analysis to determine the stability of positions detected by CTK tracking system.

KINOVA | SURGICAL INNOVATION FELLOW
Dec 2017 – April 2018 | Montreal, QC
Worked with **Geneviève Foley**. Designed a vision module to detect face of patients and position of a plate to plan robot trajectories in human environments.

RESEARCH

MCGILL REASONING AND LEARNING LAB & MILA | PHD RESEARCHER, JAN 2020 – PRESENT | MONTREAL, QC
Under supervision of **Doina Precup** & **Blake Richards**. Conducting research in biologically plausible memory mechanisms for RL agents• Developed *Grid-Cell based agent* for RL course project.

CONCORDIA DEEP LEARNING FOR MEDICAL AND VISUAL PROCESSING LAB | RESEARCHER, SEP 2017 – DEC 2019 | MONTREAL, QC
Under supervision of **Thomas Fevens**. Participated in a Kaggle Competition (Modified MNIST Challenge)• Sentiment Classification of Yelp & IMDB datasets• Presented "Meta-Learning for Training Medical Image Analysis Systems".

SHAHID BEHESHTI UNIVERSITY E-SENSE LAB. | UNDERGERADUATE RESEARCHER, JUL 2015 – MAR 2017 | TEHRAN, IRAN
Developing a **Human Activity Recognition System** based on acceleration signals to detect Sleeping, Sitting, Standing, Walking, etc.• Led by **Mona Ghassemian** to aid Parkinson research.

AWARDS

2019,2018	top 10%	Concordia Merit Graduate Scholarship
2017	Co-Op	NSERC-CREATE Surgical Innovation Program Stipend
2017	top 10%	Concordia Merit Entrance Scholarship
2012	top 1%	Iranian National Engineering University Entrance Exam

PUBLICATIONS

[1] T. Deleu, T. Würfl, M. Samiei, J. P. Cohen, and Y. Bengio. Torchmeta: A meta-learning library for pytorch. *arXiv preprint arXiv:1909.06576*.

[2] M. Samiei, T. Würfl, T. Deleu, M. Weiss, F. Dutil, T. Fevens, S. Lemieux, G. Boucher, and J. P. Cohen. The TCGA Meta-Dataset Clinical Benchmark. *MLCB NeurIPS Workshop 2019*, arXiv:1910.08636.

VOLUNTEERING & TEACHING EXPERIENCES

Organizing WiML Un-Workshop at ICML 2020• Volunteering at RLDM 2019•NIPS 2018•Montreal AI Symposium (MAIS) 2019 & 2018•RoboCup 2018. Montreal **Tutor & Lab Demonstrator:** Data Structures, Fundamentals of Programming, Computer Networks, Machine Language. **Program on Duty:** Principle of Programming Language. **Marker:** Theory of Computer Science.