Ali Hejazizo | Curriculum Vitae

University of Alberta–Department of Computer Science

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RESEARCH INTERESTS

- Machine Learning
- Natural Language Processing

EDUCATION

- **Master of Science** May, 2016–Present
  University of Alberta *Edmonton-Canada*
  - Computer Science May, 2017-2019 (Expected)
    - GPA: 4/4 via 9 credits
  - Electrical and Computer Engineering May, 2016-2017
    - GPA: 3.9/4 via 9 credits
- **Bachelor of Science** 2011–2015
  Amirkabir University of Technology *Tehran-Iran*
  - Electrical and Computer Engineering
    - Major: Power Systems
    - Minor: Electronics
    - GPA: 4/4

HONORS

- Ranked 1st in Electrical Engineering, Power Group, among more than 30 students, Amirkabir University of Technology, Tehran, Iran.
- Ranked 121st in university entrance exam, among more than 300,000 participant [Summer 2011].
- Granted admission from Talented Student Office of Amirkabir University of Technology for graduate study.

WORK EXPERIENCE

- *AltaML*
  Several machine learning projects, including but not limited to: June 2018-present
  - Natural Language Processing
    - Question answering
    - Text classification
    - Entity extraction
    - Spelling correction
  - Survival Analysis
  - Cancer type prediction and classification
  - ...

PROJECTS

- Mapping Macroscopic Brain Connectomes via Multidimensional Encoding, Learning, and Optimization using dMRI brain images.

  - Mapping onnectomes for one part of the brain, the arcuate fasciculus, using extremely high-dimensional sparse tensors.
  - Loading data and visualization in Matlab
  - Encoding, learning, and optimization in C with GPU parallel computing.
  - Supervisor: Dr. Martha White
- Diagnosis of Alzheimer's Disease Based on Structural MRI Images using Machine Learning Techniques.
  - Step 1: Preprocessing MRI images using Freesurfer tools.
  - Step 2: Feature extraction.
  - Step 3: Applying machine learning techniques for diagnosis task.
  - Supervisor: Dr. Jörg Sander
- Model compression with teacher-student method on MNIST dataset using Tensorflow.
  - Supervisor: Dr. Nilanjan Ray
- Efficient keyword and phrase retrieval for the boolean and vector space models. This project includes:
  - Building an inverted index to enable fast document retrieval.
  - Boolean and vector space model retrieval.
  - Zone indexing and scoring.
  - Supervisor: Dr. Denilson Barbosa

Courses

- Machine Learning [Fall 2017]
  - Instructor: Dr. Martha White
- Knowledge Discovery and Data Mining [Fall 2017]
  - Instructor: Dr. Jorg Sander
- Information Retrieval [Winter 2018]
  - Instructor: Dr. Denilson Barbosa
- Deep Reinforcement Learning [Winter 2019]
  - Instructor: Prof. Rich

Online Courses

- Complete Python Bootcamp: Go from zero to hero in Python 3
- Python Beyond the Basics - Object-Oriented Programming
- Data Analysis Course with Pandas : Hands on Pandas, Python
- Data Analysis with Pandas and Python
- The Ultimate MySQL Bootcamp: Go from SQL Beginner to Expert
- Machine Learning
- Python for Everybody Specialization
- Parallel Programming using GPGPU and CUDA
- The Data Scientist's Toolbox
- Introduction to HTML5
- Introduction to CSS3
- Interactivity with JavaScript
- Git Complete

COMPUTER SKILLS

Programming/Scripting

- Python
  - Tensorflow
  - NLTK
  - Sklearn
  - Pandas
- MySQL
- SQLite
- SPARQL
- C/C++
  - CUDA
    - cuBLAS
    - cuSparse
- JavaScript
- HTML5/CSS3
- LaTeX

IDEs/Tools

- VSCode
- PyCharm
- Sublime Text
- IntelliJ
- Matlab

TEACHING EXPERIENCES

- Teaching Assistant
  - CMPUT 272 - Formal Systems and Logic in Computing Science Winter 2020
    - Lab instructor
    - Instructor: Dr. Lorna Stewart (University of Alberta)

- CMPUT 101 - Introduction to Computing — Winter, Fall 2017 & Winter 2018, 2019
  - Lab instructor
  - Instructor: Dr. Janelle Harms (University of Alberta)
- Advanced Programming — Winter 2016
  - Instructor: Dr. Jahanshahi (Amirkabir University)
- C++ Programming — Fall 2015
  - Instructor: Dr. Amir Jahanshahi (Amirkabir University)
- Electrical Machines I — Winter 2014
  - Instructor: Dr. Javad Moghani (Amirkabir University)
- Engineering Mathmathics — Fall 2013
  - Instructor: Dr. Yaser Norouzi (Amirkabir University)

References, Further information, and Proofs are available upon Request