

Ali Hejazizo | Curriculum Vitae


University of Alberta—Department of Computer Science

☎ (+1) 780 680 3295 • ✉ hejazizo@ualberta.ca • 🌐 ali-hejazi.com
in [hejazizo](#) • 🔗 [hejazizo](#)

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].
- Exempted from university entrance exam for M.Sc. program and offered M.Sc. program from both Sharif and Amirkabir University of Technology.
- Permitted to study Electronics as a minor (This permission is only awarded to talented students, introduced by the Exceptional Talents Office).
- Granted admission from Talented Student Office of Amirkabir University of Technology for graduate study.

INTERNSHIP

- Investigation, detection and identification of abnormalities in customers' consumption patterns in power distribution systems, using Data Mining methods such as K-Means, PSO, Fuzzy, and SFLA algorithms, in order to reduce Nontechnical Losses.
 - Supervisor: Dr. Hosseini

PUBLICATION

"Interoperability of Protection Systems in High Voltage Direct Current (HVDC) Networks", 2016 CIGRE Canada Conference Hyatt Regency Vancouver, Vancouver, BC Canada, October 17-19, 2016
A. Hejazizo, S. Pirooz Azad, and D. Van Hertem Accepted on June 17th, 2016

PROJECTS

In progress:

- Question Answering System Implementation with Memory Networks.
 - Step 1: Rewriting the question into one or more equivalent forms (paraphrases).
 - Step 2: Compiling questions into query templates.
 - Step 3: Logical query rewrite (based on the RDF graph).
 - Step 4: Ranking the answers.
 - Supervisor: Dr. Denilson Barbosa
- Mapping Macroscopic Brain Connectomes via Multidimensional Encoding, Learning, and Optimization using dMRI brain images.
 - Supervisor: Dr. Martha White
- Finding the Nuclei in Divergent Images to Advance Medical Discovery using Deep Learning Techniques.
 - Data Science Bowl Competition








Completed:

- 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
- 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
- Evaluation of machine learning classifiers in the task of passengers' survival prediction on titanic dataset.
 - Step 1: Visualization.
 - Step 2: Preprocessing data, in particular handling missing value.
 - Step 3: Applying three different machine learning classifier, namely logistic regression, neural network, and SVM.
 - Step 4: Applying statistically significance tests to evaluate classifiers' results.
 - Instructor: Dr. Martha White
- Implementing Telegram Application Robots using Telepot API.
 - @autstackbot:
 - In this project, I have implemented a Telegram Bot so that students can send questions, receive answers, mark correct answers as accepted, etc. The environment is continuously improving to have all functionalities of Stackoverflow website.
 - Users are currently over 150 students.
 - @python_compile_bot: This robot receives commands from users and interprets them in python language, then shows the result in a neat and beautiful format.
- RS232 protocol implementation.
 - The project includes two GUI in MFC and PyQt to send and receive data, respectively.
 - Supervisor: Dr. Jahanshahi






Courses

- | | |
|---|---|
| ○  Machine Learning <ul style="list-style-type: none">- A+- Instructor: Dr. Martha White | ○  Information Retrieval <ul style="list-style-type: none">- In Progress- Instructor: Dr. Denilson Barbosa |
| ○  Knowledge Discovery and Data Mining <ul style="list-style-type: none">- A- Instructor: Dr. Jörg Sander | ○  Knowledge Graph <ul style="list-style-type: none">- In Progress- Instructor: Dr. Denilson Barbosa |
| ○  Advanced Programming <ul style="list-style-type: none">- A+- Instructor: Dr. Amir Jahanshahi | ○  Visual Recognition (Deep Learning) <ul style="list-style-type: none">- Auditor- Instructor: Dr. Nilanjan Ray |

ONLINE COURSES (COURSERA)

- o  Machine Learning
 - Created by: Stanford University
- o  The Data Scientist's Toolbox
- o  Getting Started with Python
- o  Python Data Structures
- o  Using Python to Access Web Data
- o  Using Databases with Python
 - Created by: University of Michigan
- o  Introduction to HTML5
- o  Introduction to CSS3
- o  Interactivity with JavaScript
 - Created by: University of Michigan

TEACHING EXPERIENCES

- o Teaching Assistant
 -  CMPUT 101 - Introduction to Computing Undergraduate Course. Winter 2017, Fall 2017 & Winter 2018
 - Lab instructor
 - Instructor: Dr. Janelle Harms (University of Alberta)
 -  Advanced Programming. Winter 2016
 - Leading and supervising students in course material, assignments, exams and in small project teams (2-4 members) in completing several Python and C++ projects.
 - Instructor: Dr. Jahanshahi (Amirkabir University)
 -  C++ Programming. Fall 2015
 - Designing assignments, instructing course material, and leading several small project teams (2-4 members) in completing more than 11 C++ projects.
 - Instructor: Dr. Amir Jahanshahi (Amirkabir University)
 -  Electrical Machines I. Winter 2014
 - Instructor: Dr. Javad Moghani (Amirkabir University)
 -  Engineering Mathematics. Fall 2013
 - Instructor: Dr. Yaser Norouzi (Amirkabir University)

COMPUTER SKILLS

Programming/Scripting

- o C++
- o Python
- o Java
- o JavaScript
- o HTML5
- o CSS3
- o SQLite
- o SPARQL
- o \LaTeX
- o MFC

IDEs/Tools

- o PyCharm
- o Matlab
- o Freesurfer
- o IntelliJ
- o MS. Visual Studio
- o Spyder
- o Qt Creator
- o PyQt
- o R-Studio
- o Code-Blocks

📌 References, Further information, and Proofs are available upon Request