



# MARYAM HONARI

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## EDUCATION

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### University of Victoria

Victoria, Canada

M.Sc. Computer Science — **Expected Graduation: Jan. 2019**

Overall GPA: 4.22/4.33

**Supervisor:** Dr. Alona Fyshe, **Thesis:** Decoding Semantic Representations during Production of Minimal Adjective-Noun Phrases

Sep. 2016 - Present

### Shiraz University

Shiraz, Iran

B.Sc. Computer Engineering (Software Engineering)

Sep. 2012 - Jul. 2016

Achieved 4<sup>th</sup> rank among 70 CE students

Overall GPA: 18.06/20.0

## EXPERIENCE

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### Black Duck Software, Vancouver, BC

Apr.- Jul 2016

*Data Scientist Intern*

- Improved the accuracy of a legal agreement classifier by 10% and designed it to retrieve the risky information from documents.
- Integrated this module as a microservice in a larger software product

### Center of Intelligent Vision&Image Processing (CIVIP), Shiraz, Iran

Jun. - Nov. 2015

*Machine Vision Intern, advised by Dr. Zohreh Azimifar*

- Contributed to design and implementation of Vehicle Speed Estimation system; an automated system to predict speed and trajectory of vehicles in urban areas
- Tuned License Plate Recognition System (LRP) in day and night conditions

### Fars Mehvar Azema (FMA), Shiraz, Iran

Apr.- Jul 2016

*Microcontroller programming Intern*

- Programmed and tested the microcontroller of voltage/current relays to be used in power systems

## PUBLICATIONS

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### Decoding semantic representations during production of minimal adjective-noun phrases

Correlating the MEG recordings to the semantic representation of the words

*In Preparation*

### Ensemble Methods for Native Language Identification

Sep. 2017

*Proceeding in 12th Workshop on Innovative Use of NLP for Building Educational Applications (BEA12)*

## RELATED PROJECTS

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### Convolutional Neural Networks for Facial Expression Recognition

Spring 2017

- Developed an online application to predict emotions in real-time
  - Explored three neural network architectures and achieved accuracy of 68.2% on FER2013 dataset
- Tools:** Keras, Tensorflow, OpenCV, python

### Oscars' Winners and Nominees prediction

Fall 2016

- Explored impact of social profile of a movie on nomination or winning of an academy award
  - Achieved 64% accuracy on nominees and 41% accuracy on winners of last 50 academy awards
- Tools:** python, scikit-learn, Pandas, numpy, matplotlib

## Facial Recognition system, Undergrad project

Spring 2016

- Built an online application to dynamically recognize faces in videos
- Performance of Eigen faces, Fisher faces, LBPH and KNN were compared on variety of datasets

**Tools:** C++, opencv

## Parallel Graph Algorithms on GPU

Fall 2015

*Parallel programming - Dr. Khunjush*

- Developed BFS, Floyd-Warshall and graph coloring algorithms on CUDA platform
- Improved performance of all algorithms, e.g. 90x speed up in Floyd-Warshall for a graph of 2k nodes

**Tools:** CUDA, C++

## Library Management System

Fall 2014

- A website for managing a library implemented based on MVC architecture

**Tools:** Java, hibernate, JDBC Realm, HTML, CSS and JS

## Antivirus for portable devices with C++

Spring 2013

- Aimed to detect viruses in any portable devices and unmount it right after connecting to the computer
- Done virus signatures matching with an efficient algorithm named “Aho-Corasick”

**Tools:** C++, Microsoft Windows libraries HTML, CSS and JS

## TEACHING ASSISTANT

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Algorithms and Data Structures

*University of Victoria*

Design and Analysis of Algorithms

*Shiraz University*

Data Structures & Algorithms

*Shiraz University*

Digital Design

*Shiraz University*

## TECHNICAL SKILLS

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**Programming Languages**

C/C++ • Java • C# • Python • MATLAB  
SQL • PHP • Javascript • CSS • HTML

**platforms&Frameworks**

Keras • Tensorflow • OpenCV • CUDA  
Unity • JDBC Realm • JavaFX • HIBERNATE  
Git • LATEX • Tableau • Docker

**Operating Systems**

Windows • Linux

## HONORS AND AWARDS

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Volunteer mentor at science venture

*Aug. 2017*

*Department Fellowship and TA/RA position from University of Victoria*

*Sep. 2016*

*Department Fellowship and TA/RA position from position from University of Alberta*

*Sep. 2016*

**Ranked 4<sup>th</sup> among 70 students in the Computer Engineering at Shiraz University**

*Jun. 2016*

**Ranked 12<sup>th</sup> among 155 teams in AI Challenge**

*Feb. 2015*

*A multi-agent survival challenge held by Sharif University of Technology*

*Honorable mention in ACM ICPC Asia Tehran Regional Contest*

*Dec. 2013*

*Semi-finalist in Iranian National Olympiads in Math and Informatics*

*2010 & 2011*