# MARYAM HONARI

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### **EDUCATION**

University of Victoria

M.Sc. Computer Science, **Supervisor**: Dr. Alona Fyshe

Research: Machine learning, Natural Language processing

Shiraz University

B.Sc. Computer Engineering (Software Engineering)

Ranked 4<sup>th</sup> among 100 CE students

Overall GPA: 4.22/4.33 Sep. 2016 - Apr.2019

Shiraz, Iran

Victoria, Canada

Sep. 2012 - Jul. 2016 Overall GPA: 18.06/20.0

### **EXPERIENCE**

Machine Learning Engineer | Unity Technologies, Vancouver, BC

Feb 2021 - Present

- Develop Machine learning tools to train agents in games, Maintain open-source ML-agents package

Machine Learning Engineer | Kabam Games, Vancouver, BC

May - Jan 2021

- Train reinforcement learning agents for play-testing and game balancing
- Design and development of game agnostic reinforcement learning platform

Data Scientist Intern | Synopsys Software, Vancouver, BC

Sep - Dec 2017

 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

Computer Vision Researcher Intern | CIVIP, Shiraz, Iran

Jun. - Nov. 2015

- Advised by Dr. Zohreh Azimifar
- Contributed to design and implementation of Vehicle Speed Estimation system;
- Tuned License Plate Recognition System (LRP) in the day and night conditions

### **PUBLICATIONS**

Neural representation of words within phrases: Temporal evolution of color-adjectives and object-nouns during simple composition [PDF]

PLOS ONE Journal

Ensemble Methods for Native Language Identification [PDF]

EMNLP17 workshop on Building Educational Applications

Decoding semantic representations during production of minimal adjective-noun phrases Master's Thesis (computer Science, University of Victoria) [PDF]

### RELATED PROJECTS

# 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

# Air hockey game on android

Fall 2015

Developed Air hockey game in unity engine for android devices
 Tools: Unity, C#, blender

# Parallel Graph Algorithms on GPU

Fall 2015

Parallel programming - Dr. Khunjush

- Developed BFS, Floyd-Warshall and graph colouring 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++

### Correlation Between Transportation Expansion and Socioeconomic Effects Winter 2017

– Developed a Tableau visualization to represent how transportation system expansion correlated the socio-economic indices like income and house affordability, in London, UK in recent years

Tools: Tableau, python, panadas

### TEACHING ASSISTANT

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

Programming Languages	• C/C++ • Java • C • SQL • PHP • J	"	
platforms & Frameworks	<ul><li> Pytorch</li><li> Docker &amp; Kubernetes</li><li> Unity</li></ul>	$\bullet$ AWS & GCP	<ul><li>OpenCV</li><li>Flask</li><li>LaTeX</li><li>Git</li></ul>

# HONORS AND AWARDS

Placed 2 <sup>nd</sup> at the Native Language Identification (NLI) Challenge at EMNLP Confere	nce $Sep$ , 2017
Volunteer mentor at Science Venture workshop	Aug. 2017
Department Fellowship and RA position from University of Victoria	Sep. 2016
Prospective department Fellowship and RA 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 A multi-agent survival challenge held by <i>Sharif University of Technology</i>	Feb. 2015
Honorable mention in the regional ACM-ICPC, Tehran, Iran	Dec. 2013
Semi-finalist in Iranian National Olympiads in Math and Informatics	2010 & 2011