# Negar Arabzadehghahyazi

### PERSONAL DATA

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ADDRESS: 1008-266 Sherbourne st, Toronto, ON

## **EDUCATION**

FALL 2019 | Master of Applied Science in Electrical and Computer Engineering

Department of Electrical, Computer and Biomedical Engineering Ryerson University, Toronto, Ontario, Advisor: Dr. Ebrahim Bagheri

Thesis: "Neural Embedding-based Specificity Metrics for Query Performance Prediction"

FALL 2017 | GPA: 4.0/4.0

WINTER 2017 | Bachelor of Science in Electrical Engineering (Control Systems)

Amirkabir University of Technology (Tehran Polytechnic), Iran
Thesis: "Design and implementation of intelligent shopping cart"

with the following capabilities: Image Processing, Object Tracking, Grabbing, and Transporting

with a 3DOF Robotic Arm, IOT, RFID Scanner

FALL 2012 | GPA: 78/100

Spring 2012 | Diploma in Mathematics and Physics, Farzanegan1 HighSchool

NODET (National Organization for Development of Exceptional Talents) , Iran

FALL 2009 GPA: 19.34/20

## **RESEARCH INTERESTS**

Information retrieval Data mining Machine Learning
Text Analytic Natural Language Processing Deep Learning

#### **PUBLICATIONS**

- 1. Tamannaee, M. Arabzadeh, N. and Bagheri, E. Vis-Trec: A System for the In-depth Analysis of trec\_eval Results. In 43rd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2020)
- 2. **Arabzadeh, N.** Zarrinkalam, F. Jovanovic, J. Al-Obeidat, F. and Bagheri, E. Neural Embedding-based Specificity Metrics for Pre-Retrieval Query Performance Prediction. In Information Processing and Management Journal, (IP&M 2020)
- 3. Arabzadeh, N. Zarrinkalam, F. Jovanovic, J. and Bagheri, E. Neural Embedding-based Metrics for Pre-Retrieval Query Performance Prediction. In 42nd European Conference on IR Research (ECIR 2020).
- 4. Arabzadeh, N. Zarrinkalam, F. Jovanovic, J. and Bagheri, E. Geometric Estimation of Specificity within Embedding Spaces. In Proceedings of the 28th ACM International Conference on Information and Knowledge Management (CIKM 2019).
- 5. **Arabzadeh**, N. Entity Retrieval Docker Image for OSIRRC at SIGIR 2019 . In Proceedings of the Open-Source IR Replicability Challenge (OSIRRC 2019) co-located with 42nd International ACM SIGIR Conference on Research and Development in Information Retrieval (SIGIR 2019)
- 6. **Arabzadeh,N.** Fani, H. Zarrinkalam, F. Navivala, A. and Bagheri, E. Causal Dependencies for Future Interest Prediction on Twitter. In Proceedings of the 27th ACM International Conference on Information and Knowledge Management (CIKM 2018)

## **WORK EXPERIENCE**

2020-Current	Research Associate - University of Waterloo, Waterloo Conducting research on Neural Indexing
2019-Current	Research Associate - Ryerson University, Toronto Conducting research in information retrieval area which results in publishing papers in prestigious proceeding such as CIKM, ECIR and IP&M
2019	Data scientist - Boss Insight Start-up company , Toronto Design a model to predict start-up companies failure or success using machine learning techniques
2016-2017	programmer in a web and application development start-up company "Jahanjoy", Iran Developing an advertisement website crawler in order to find and store real-states ads daily in a noSQL databas developed in visual studio by C#, using MongoDB
2012-2015	Robotic team supervisor at NODET (National Organization for Development of Exceptional Talents) High schools, Iran  Mentoring, advising and teaching c++ programming and basic electronic concepts to high school students in order to design different robots to participate in several national and international academic robotic competitions

## **SKILLS**

Research	Deep Learning systems such as TensorFlow, PyTorch, Google Cloud platform Applied machine learning feature detection and descriptor concepts such as SVM, RNN, KNN, K-means, Decision Trees, Neural Networks, SIFT, HoG, etc. Docker, Recommender systems, Neural embeddings, Learning to rank, BERT
Programming	C, C++, C#, Python, R, NoSQL databases : MongoDB, Assembly, HTML, CSS
Software	MATLAB , CodeVision , Weka, Processing (Kinect Image processing), Proteus, Keil, Altium Designer (Protel DXP), SolidWorks
Hardware	ARM, AVR, Arduino Boards

# REVIEWING

- 1. Information Processing and Management International Journal, IPM, [2018,2020]
- 2. The 33rd Canadian Conference on Artificial Intelligence, CanadianAI, [2020]
- 3. IEEE/ACM International Conference on Advances in Social Networks Analysis & Mining, ASONAM, [2018] 4. International Conference on Social Media & Society, SMSociety, [2018]
- 5. Centre for Advanced Studies Conference, CASCON, [2018,2019]

# **AWARDS AND HONORS**

2019, CANADA	Runner-up in SOSCIP's 3 Minute Thesis Competition at Advance Ontario
2017-2019, CANADA	Ryerson Graduate Development Award
2012, <b>I</b> RAN	Exempted from university entrance exam for B.Sc program
2011, <b>I</b> RAN	1st place at 3rd Khwarizmi International Award at junior soccer
2010, SINGAPORE	Qualified and participated in 15th Robocup competition at junior soccer league
2010, IRAN	1st place at 5th International IranOpen competition at junior soccer robots league
2009, IRAN	1st place at 1st International AUT cup competition at path finder robots league
2005 & 2008, IRAN	Placed among 0.5% accepted students out of 60,000 participants in the NODET
	(National Organization for Development of Exceptional Talents) schools

# TEACHING ASSISTANT

2019-2020	Intelligent Systems (EE8219/ELE888), Electrical and Computer Eng Department, Ryerson University
2018	Data Structure and algorithm (COE428), Electrical and Computer Eng Department, Ryerson University
2017-2020	Microprocessors (COE538), , Electrical and Computer Eng Department, Ryerson University
2018-2019	Bus Intelligence and Analytics (ITM618), , Ted Rogers School of Management, Ryerson University
2017	Industrial Automation, Electrical Engineering Department, AmirKabir University of technology