

Michael Azmy

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EDUCATION	<i>MSc., Computer Science</i>	Sep 2017 - Expected April 2019
	University of Waterloo, Canada Advisor: Ihab F. Ilyas , Data Systems Group	
	<i>B.Sc., Computer and Systems Engineering</i>	Sep 2011 - June 2016
	Alexandria University, Egypt Cumulative Grade: Distinction with Honor	
WORK EXPERIENCE	<i>Data Scientist Intern</i>	January 2019 - Present
	Thomson Reuters Labs - Waterloo Region, Canada.	
	<ul style="list-style-type: none">• Working on Information Extraction and Natural Language Processing pipelines.	
	<i>Research Assistant</i>	September 2017 - Present
	David R. Cheriton School of Computer Science, University of Waterloo.	
	<ul style="list-style-type: none">• Worked on knowledge graphs integration and question answering.• Worked on data quality and data curation of RDF data.• Worked on constraints mining over RDF data.• Design and implementation of a big data eco-system pipeline for distributed knowledge extraction over large-scale data.	
	<i>Teaching Assistant</i>	September 2017 - Present
	David R. Cheriton School of Computer Science, University of Waterloo.	
	<ul style="list-style-type: none">• Held office hours, assisted in marking assignments, proctoring and marking exams in CS348 - Introduction to Database Management course.• Assisted in marking assignments, proctoring and marking exams in CS116 - Introduction to Computer Science course.	
	<i>Research Assistant</i>	July 2016 - July 2017
	Computer and Systems Engineering Department, Faculty of Engineering, Alexandria University.	
	<ul style="list-style-type: none">• Participated in The DARPA Spectrum Collaboration Challenge (SC2), a first-of-its-kind collaborative machine-learning competition to overcome scarcity in the radio frequency (RF) spectrum.• Participated in The IEEE DySPAN 2017 Spectrum Sharing Challenge, a competition designed to demonstrate a radio protocol that can achieve high spectral efficiency in a dynamic environment.	
	<i>Teaching Assistant</i>	July 2016 - July 2017
	Computer and Systems Engineering Department, Faculty of Engineering, Alexandria University.	
	<ul style="list-style-type: none">• Assisted professors by leading weekly computer labs, demonstrating lectures, fielding homework's questions, and grading exams and student lab assignments.• Held office hours to ensure students understood course concepts thoroughly.	

- **Assisted** in instructing three **Computer Networks** courses and one **Introduction to Computer Science** course.

Undergraduate Research Assistant

Summer 2015

Computer and Systems Engineering Department, Faculty of Engineering, Alexandria University.

- **Built** a Cognitive Radio Cloud (CRC) to enable a collaborative environment for wireless communications research and other educational purposes.
- **Implemented** a **genetic algorithm-based** mapper to support multiple concurrent users on wireless testbeds. This work was published in **IEEE WCNC 2016**.

Undergraduate Research Assistant

Summer 2014

Computer and Systems Engineering Department, Faculty of Engineering, Alexandria University

- **Topics:** Cloud Computing, Big Data, Distributed Systems and Data Management.
- **Contributed** to **ReStore** project (extension to **Pig**), and **running** experiments on large datasets.
- **Developed** a cost-based management technique for a repository of materialized views in the cloud to optimize materialization of **Map-Reduce (Hadoop)** results.
- **Performed** comparative data analysis and visualization on experimental data which showed that our materialization technique can reduce cost and execution time significantly.

SELECTED PROJECTS

- **Graduation Project: Learning Semantics with Deep Belief Network for Cross-Language Information Retrieval** (English - Arabic)
- **Cognitive Radio Cloud (CRC):** Enabling a Collaborative Environment for Cognitive Radio Research.
- **3seka Carpooling App.:** Developed a carpooling application that enable car owners and passengers to share rides. Implemented using AngularJS, Ionic Framework as front-end and Symfony Framework as back-end.

PUBLICATIONS

- **Farewell Freebase: Migrating The SimpleQuestions dataset to DBpedia**
Michael Azmy, Peng Shi, Ihab F. Ilyas, and Jimmy Lin
The 27th International Conference on Computational Linguistics (COLING), 2018.
Featured in **DBpedia**'s official Twitter.
- **A Genetic Algorithm-based Approach for Content Delivery in Femtocaching Assisted Networks**
Michael Azmy, Karim ElAzzouni, Ahmed Abuemeira, and Mustafa ElNainay
Wireless Communications and Networking Conference (WCNC), 2017 IEEE.
- **Using Deep Learning in Arabic-English Cross Language Information Retrieval**
Omar Attia, Michael Azmy, Ahmed Abu Emeira, Karim ElAzzouni, Omar Hussein, Nagwa M. El-Makky, and Khaled Nagi
International Conference on Knowledge Discovery and Information Retrieval (KDIR), 2016.
- **Genetic Algorithm-based Mapper to Support Multiple Concurrent Users on Wireless Testbeds**

Yaser A. Elnakieb, **Michael Azmy**, Mustafa ElNainay
Wireless Communications and Networking Conference (WCNC), 2016 IEEE.

AWARDS

- **Graduate Scholarship Award, University of Waterloo.** 2017
- **International Doctoral Student Award, University of Waterloo.** 2017
- **Distinguished Undergraduate Researcher Award, Alexandria University:** Published my first undergraduate paper. 2016
- **Information and Communication Technology Outsourcing (ITIDA):** Graduation Project fund winner. 2015
- **ACM Outstanding Website Award:** Developing official website for Alexandria ACM Students Chapter. 2014
- **ACM Honorable Mention:** Participated in Delta Collegiate Programming Contest. 2013

TECHNICAL SKILLS

- **Languages:** JAVA, C/C++, PYTHON, PHP, MYSQL, HTML, JAVASCRIPT, L^AT_EX, R, MATLAB, LINUX SHELL SCRIPTING.
- **Operating Systems:** GNU/LINUX, MICROSOFT WINDOWS.
- **Frameworks:** APACHE SPARK, APACHE MESOS, APACHE MARATHON, APACHE HADOOP, APACHE PIG, WORDPRESS, APACHE CORDOVA/PHONEGAP.

EXTRA-CURRICULAR ACTIVITIES

- **Head of Software Engineering,** Alex. ACM Students Chapter 2012 - 2016
- **Organized ACM** workshops, summer courses and seminars in various fields for CS students at Alexandria University and **Bibliotheca Alexandrina.** 2014

LANGUAGES

Arabic: Mother Tongue. **English:** Fluent.