

Omar M. ElTayeb

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EDUCATION

UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE, NC Ph.D. in Computer Science	May 2019 (expected)
CLARK ATLANTA UNIVERSITY, ATLANTA, GA M.S. in Computer & Information Sciences Thesis title: Measuring the Influence of Mainstream Media on Twitter Users, GPA: 4.0/4.0	May 2014
ALEXANDRIA UNIVERSITY, ALEXANDRIA, EGYPT B.S. in Communications & Electronics Engineering	July 2011

PROFESSIONAL EXPERIENCE

University of North Carolina at Charlotte, NC Research Assistant Demographic Analysis (Topic Modelling Visualization): Visualizing topic models on Reddit user generated data to find interests of the surveyed demographics	August 2014 – present
Clark Atlanta University, Atlanta, Georgia Research Assistant Measured Media's influence on segregating opinions of Twitter users: Defined trending topics using Apriori algorithm (implemented in C++) Detected segregated opinions using Expectation Maximization algorithm from analyzed sentiment Found positive and negative influence on certain topics in the range of 5-20%	August 2012 – May 2014
NICS in Oak Ridge National Laboratory, Oak Ridge, TN User Assistance Intern Built a time-series web-based visualization tool to monitor the Lustre file system using D3 & Highcharts (JavaScript libraries) The tool is used by the system administrators to monitor the storage & I/O requests of users on Kraken, a University of Tennessee High Performance Computers resource in ORNL	May 2013 – August 2013
SUMED (Arab Petroleum Pipelines Co.), Alexandria, Egypt Control Systems Intern Designed Programmable Logic Controller (PLC) circuits to control pumping motors in emergencies and high load situations Emulated the circuits on Siemens S7 platform using LADDER diagram Verified the consistency of the circuits for different inputs and test situations	Summer 2009

PUBLICATIONS, POSTERS & TALKS

Publications:

- ElTayeb O, Molnar P, George R. "Measuring the Influence of Mass Media on Opinion Segregation Through Twitter." *Missouri S&T Complex Adaptive Systems 2014, PA* (accepted).
- ElTayeb O, El Kamchouchi, H. "SAR imagery improvement using hybrid waveforms." *EUSAR 2012, 9th European Conference on Synthetic Aperture Radar, in Nuremberg, Germany*

Posters:

- ElTayeb O, John D, Patel P, Simmerman S. "Comparative case study between D3 & Highcharts on Lustre metadata visualization." *IEEE Symposium on Large-Scale Data Analysis and Visualization, held in conjunction with IEEE Vis 2013 in Atlanta*

Talks:

"Visualizations using JavaScript libraries." Invited talk presented at: *Processing & Analysis of very Large Datasets workshop, sponsored by Oak Ridge National Leadership Computing Facility 2013 in Knoxville, TN*

RESEARCH INTERESTS

Visualization, Data Science, Machine Learning

SPECIAL SKILLS & RELATED COURSES

Computer skills: C, C++, Java, JavaScript, Python, PHP, Message Passing Interface, Assembly, MATLAB, PCB manufacturing

Courses: Introduction to Embedded Systems, Course CISCO Certified Network Associate (CCNA), Programmable Logic Control (PLC), AVR Microcontrollers, Database design

Language skills: Arabic (fluent), English (fluent), German (intermediate)

AWARDS & HONORS

Research Assistantship Scholarship , University of North Carolina at Charlotte	2014/2015
Graduate Assistantship Scholarship , Clark Atlanta University	2012-2014
New record in the National Black Heritage Swimming Championship, Washington DC, Virginia	2013
Best record cup in the Alexandria Swimming Championship, Alexandria, Egypt	2008

MEMBERSHIPS, ACADEMIC & COMMUNITY SERVICE

Technical Program Committee member , CHUSER 2012, BEIAC 2013 & VAST 2014 conferences	
House of Delegate for the International Students at Clark Atlanta University	2013-2014
Volunteer , LEO club Egypt (an international NGO for community service), charity activities	2010
IEEE member	2009-Current