

Walaa Eldin M. Moustafa

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Education

- Ph.D student, Department of Computer Science, University of Maryland at College Park.** Aug 2006 – Present
GPA: 4.0/4.0
- M.Sc in Computer Science, Department of Computer Science, Alexandria University.** Jun 2006
GPA: 3.97/4.0
- B.Sc in Computer Science, Department of Computer Science, Alexandria University.** Jun 2002
Received a grade of Distinction with Degree of Honors.
Ranked 3rd on a population of 72 students.

Publications

- Walaa Eldin M. Moustafa, “Who should catch this Exception?” Scholarly paper, University of Maryland at College Park, December 2008.
- Walaa Eldin M. Moustafa, Magdy H. Nagi, and Nagwa M. El-Makky, “Traveler's Predictive Route Guidance Using Vehicle-to-Vehicle Communication,” International Conference on Wireless Networks, Las Vegas, Nevada, July 2008. (Acceptance rate: 27%)
- Walaa Eldin M. Moustafa, “Traveler's Predictive Route Guidance Using Vehicle-to-Vehicle Communication,” Master Thesis, Alexandria University, June 2006.

Awards and Honors

- Fellowship from the Department of Computer Science at the University of Maryland at College Park, 2006 – 2008.
- Teaching Assistance Scholarship from the Department of Computer Science and Automatic Control, Alexandria University, 2002 – 2006.
- The ACM Certificate of Achievement for acquiring the 10th place in the ACM Collegiate Programming Contest for Africa and the Middle East, 2001.
- Faculty of Engineering Certificates of Honor along the years 1998 – 2002, Alexandria University.
- Alexandria Educational Administration Certificate of Honor for achieving the 1st place in the contests of outstanding students during the high school years, 1996 and 1997.

Related Coursework

Database Management Systems	Machine Learning	Fundamentals of Software Testing
Data Streams and Sensor Data Management	Link Mining	Creativity Support Tools
Information Centric Design of Systems	Parallel Algorithms	Computational Linguistics I

Research Projects

- Declarative Network Analysis for Very Large Graphs*** Jun 2008 – Present
University of Maryland at College Park
In this research, we describe a declarative language and implementation for analyzing large information networks. Network measures are defined declaratively, and efficiently maintained with respect to the underlying graph changes.
- Social Network Analysis of Software Repositories for Expertise Finding and Bug Triage*** Feb 2008 – Jul 2008

University of Maryland at College Park

In this research, we describe social network analysis approaches for ranking and locating experts in the domain of software development. Approaches involve network visualization, importance ranking, and link prediction.

The Skoll Project

Oct 2006 – May 2008

University of Maryland at College Park

The aim of this project is to redesign traditional testing processes so that they can be executed around-the-world, around-the-clock. These processes are logically divided into multiple tasks that are distributed around clients and results are returned to central collection sites where they are merged and analyzed to complete the overall QA process.

Merging Decision Trees

Aug 2007 – Dec 2007

University of Maryland at College Park, Class Project

In this project, we propose a decision tree learning algorithm called *Tree Merge*. In this algorithm, we *merge* two decision trees that have been already built on two different sets of data without having to combine the two original data sets.

Decision Tree Views for Data Streams

Aug 2007 – Dec 2007

University of Maryland at College Park, Class Project

In this project, we embed decision tree models into streaming DBMS. We show how *lazy* incremental view maintenance can be achieved by the employment of TreeMerge Algorithms.

Privacy of Location Information in Location-Based Services

Feb 2007 – May 2007

University of Maryland at College Park, Class Project

In this project we utilize vehicular ad hoc networks to achieve location privacy. We eliminate the need of a central *location anonymizer* where moving vehicles, collaboratively, cloak their information to achieve privacy.

Teaching Experience

Teaching Assistant

Aug 2006 – May 2008

Department of Computer Science, University of Maryland at College Park

CMSC106: Introduction to Programming in C

CMSC634: Empirical Research Methods in Computer Science. *Graduate Class*

CMSC724: Advanced Database Management Systems. *Graduate Class*.

Teaching Assistant

Nov 2002 – Aug 2006

Department of Computer Science, Alexandria University

Taught courses of Artificial Intelligence, Database Systems, Operating Systems, Automatic Control, and Computer Programming.

Instructor

May 2006 – Aug 2006

Ejada Software Systems

Taught Object Oriented Programming in Java.

Instructor

Nov 2002 – Aug 2006

Scientific Computing Center, Alexandria University

DBMS, Java, Web Applications Programming

Professional Experience

Research Assistant

May 2008 – Present

Department of Computer Science, University of Maryland at College Park

Working with Prof. Amol Deshpande and Prof. Lise Getoor on Declarative Network Analysis.

Research Assistant	Oct 2006 – May 2008
<i>Department of Computer Science, University of Maryland at College Park</i>	
Worked with Prof. Adam Porter and Prof. Atif Memon on Skoll Project.	
Software Design Engineer Intern	
<i>Global Computer Enterprises, Reston, VA.</i>	
Worked on designing test cases for FPDS-NG (https://www.fpds.gov/) and the Core Accounting System CAS portal for US Coast Guard.	
Software Engineer	Nov 2002 – Aug 2006
<i>Alexandria University</i>	
Responsible for the design and implementation of a computer-based adaptive testing system that is used by the <i>Faculty of Education</i> to admit new English language instructors.	
Software Engineer	May 2006 – Aug 2006
<i>Ejada Software Systems, Alexandria, Egypt</i>	
Participated in the design of an enterprise application using Oracle Applications Development Framework ADF.	
Software Engineer	Nov 2003 – May 2006
<i>POET-Egypt, Alexandria, Egypt</i>	
POET is a Germany-based software company . I was responsible for the Desktop Publishing XML solutions in the form of software extensions to QuarkXPress, Adobe InDesign, and Adobe InCopy that were written in C and C++.	
Software Engineer	Dec 2002 – Nov 2003
<i>EGSD – Egyptian German Software Development, Alexandria, Egypt</i>	
Participated in the Design and Implementation of QMAN. QMAN is a state of the art global solution for electronic manufacturers to identify all potential sources of failure before production begins. QMAN sales span more than 30 countries, 1200 installations worldwide.	
Software Engineer	Dec 2002 – Nov 2003
<i>Egyptian Naval Forces, IT Department, Alexandria, Egypt</i>	
Worked on the design and implementation of an interactive geographical information system that integrates AutoCAD with Oracle.	

Technical Experience

Programming Languages

C, C++, Java, J2EE, Basic, Visual Basic, Visual C++, Visual C++.NET, C#, Lisp, Prolog, Perl.

Scripting Languages

TCL, Apple Scripts, Unix Shell Scripts.

Systems Programming

Windows, Unix, Mac OS Programming using C.

Open Source Software

H2, Apache Derby: Database engines (Java).

ns-2: A wireless\wired network simulator (C++).

Database Management Systems

Oracle Developer, Oracle Designer, SQL Plus, MS SQL Server, MS Access, T-SQL, PL\SQL, Apache Derby, MySQL.

Web development languages

HTML, XML, VBScript, JavaScript, ASP, JSP, J2EE, Web Services, WDSL, XSLT

Software Testing:

JUnit, SoapUI, Mercury Quick Test Professional QTP.

References

Prof. Lise Getoor

Professor of Computer Science
University of Maryland, College Park
Email: getoor@cs.umd.edu

Prof. Amol Deshpande

Professor of Computer Science
University of Maryland, College Park
Email: amol@cs.umd.edu

Prof. Adam Porter

Professor of Computer Science
University of Maryland, College Park
Email: aporter@cs.umd.edu