Anas Youssef

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Linkedin Profile: http://www.linkedin.com/profile/view?id=251720377&trk=nav_responsive_tab_profile
Google Scholar Profile: https://scholar.google.com.eg/citations?user=Rm_cgBQAAAAJ&hl=en

KEY STRENGTHS

Critical Analysis: 15+ years of experience with analyzing complex algorithms and problem solving using different software programming tools and environments

Communication and Leadership: Effective writing, presentation and communication skills with a number of published articles and presentations in prestigious international conferences and leading teams of 4 software developers, 10 data entry members and hundreds of undergraduate students.

Coordination and Planning: Planned and coordinated industrial and graduate research projects with peers and industrial professionals, and chaired conference presentation sessions.

Programming Proficiencies: Strong programming and relational database development skills using C/C++, VB, MS Access, VBA, SQL, ADO.NET, OpenMP and MATLAB leading to the successful delivery of several projects in industry and research.

Learning and Adaptability: Strong motivation and ability to learn new tools, technologies and environments demonstrated by learning more than seven different programming languages and tools on my own.

EDUCATION

Doctor of Philosophy   **2014**
Electrical & Computer Engineering Department
Schulich School of Engineering, Calgary, AB, Canada
Thesis: Burstiness and Uncertainty Aware Service Level Planning for Enterprise Clouds
*Supervisor: **Dr. Diwakar Krishnamurthy**, Associate Professor, Department of Electrical and Computer Engineering, University of Calgary*

Master of Science   **2005**
Computer Science Department
Faculty of Computers and Information, Menoufia University, Menoufia, Egypt
Thesis: Performance Evaluation of Branch prediction Schemes in Superscalar Processors

Bachelor of Science   **2000**
Computer Engineering Department
Faculty of Engineering, Cairo University, Cairo, Egypt
Graduation Project: Development of E-commerce Dynamic Content Website Using Oracle WebDB Toolset

RESEARCH INTERESTS

Green Cloud Computing
Cloud resource management
Service level planning for enterprise applications in cloud environments
Software performance engineering
Software usability of mobile applications
Software Engineering for embedded systems
Fog Computing
Performance modeling of multi-tier applications
Performance evaluation of superscalar processor architectures
Arabic text mining
Security in Internet of Things

RESEARCH EXPERIENCE

Assistant Professor   **March 2015-present**
Computer Science Department
Faculty of Computers and Information, Menoufia University, Menoufia, Egypt

Research Assistant (PhD)   **2009-2013**
Schulich School of Engineering, University of Calgary, AB, Canada
Designed and implemented six projects in the field of cloud resource management:
- Development of a novel Resource Allocation Planning (RAP) method to help cloud service providers in minimizing resources allocated to customer applications while satisfying applications' service level objectives.
- Performance optimization of RAP using OpenMP parallel C++ programming libraries.
- Design and Implementation of a complex hierarchical clustering algorithm using MATLAB to group application workload with similar workload characteristics such as burstiness.
- Design and Implementation of a Monte Carlo simulation algorithm using MATLAB to account for uncertainty in application workloads.
- Implementation of a queuing simulation model of multi-tier applications to emulate resources deployed in cloud environments using C/C++ programming, GCC and Eclipse IDE under Windows/Linux.
- Development of event-driven queuing simulations using OMNET++ simulation libraries.

Research Assistant   **2007- 2008**
Schulich School of Engineering, University of Calgary, AB, Canada
- Implemented software programs in image and video processing using C# and Visual Studio 2005.

Research Assistant (MSc)   **2003-2005**
Faculty of Computers and Information, Menoufia University, Egypt
Designed and implemented a project to analyze and evaluate the performance of superscalar processors:
- Development of C++ programs to implement hardware simulations using SimpleScalar toolset under Linux to emulate superscalar processor architectures.
- Testing the developed C++ programs using SPEC2000 processor benchmarks.
- Data analysis to compare the performance of various branch prediction schemes in modern superscalar processors.

RESEARCH CONTRIBUTIONS AND PUBLICATIONS

Mahmoud Elbaradie, **Anas Youssef** and Ashraf Elsisi, "*A Trust-Management-Based Intrusion Detection System for Routing Protocol Attacks in Internet of Things*." *IJCI. International Journal of Computers and Information* (2020).

Anas Youssef and Diwakar Krishnamurthy, "*Burstiness-aware service level planning for enterprise application clouds.*" Journal of Cloud Computing: Advances, Systems and Applications (JoCCASA) 6.1 (2017): 17.

Anas Youssef, "*Burstiness and Uncertainty Aware Service Level Planning for Enterprise Clouds*," Ph.D. Thesis, University of Calgary, AB, Canada, 2014.

Anas Youssef and Diwakar Krishnamurthy, "*Cloud Service Level Planning under Burstiness*," International Symposium on Performance Evaluation of Computer and Telecommunication Systems, SPECTS 2013.

Anas Youssef and Diwakar Kirshnamurthy, "*A Trace-Based Service Level Planning Framework for Enterprise Applications Clouds*," International Conference on Network and Service Management, CNSM 2011.

Mostafa Mohamed, **Anas Youssef**, Yehya Ghallab, and Wael Badawy, "*On the Design of Digital Control for Lab-on-Chip Systems*," International Symposium on Circuits and Systems, ISCAS 2009.

Anas Youssef, "*Performance Evaluation of Branch Prediction Schemes in Superscalar Processors*," M.Sc. Thesis, Menoufia University, Cairo, Egypt, 2005.

Anas Youssef, Nabil Ismail, and Fawzy Torkey, "*Comparison of Branch Prediction Schemes for Superscalar Processors*," International Conference on Electrical, Electronic and Computer Engineering, ICEEC 2004.

TEACHING EXPERIENCE

Full Time Assistant Professor   **Sept 2015-present**
Faculty of Computers and Information, Menoufia University, Egypt
Selected Courses:
- Advanced Database Systems for PhD degree students
- Knowledge Engineering for master's degree students
- Parallel and Multi-core Programming for master's degree students
- Android Development for computer science diploma graduate students
- Database Systems for computer science diploma graduate students
- Operating Systems-3 for computer science diploma graduate students
- Knowledge-Based Systems for fourth year undergraduate students
- Assembly Language Programming and Computer Architecture for third year undergraduate students
- Logic Programming for third year undergraduate students
- Operating Systems-2 for fourth year undergraduate students
- Distributed Systems for fourth year undergraduate students

Adjunct Assistant Professor   **Summer 2017 - present**
Zewail City of Science and Technology, Computer & Information Engineering, Egypt
Selected Courses:
- CIE202: Fundamentals of Computer Programming
- CIE205: Data Structures & Algorithms Analysis
- CIE 539: Advanced Computer Architecture
- CIE 564: Parallel and Distributed Computing

Adjunct Assistant Professor   **Spring 2017 – Fall 2019**
Faculty of Computers and Informatics, Cairo University, Egypt
Selected Courses:
- Software Engineering for Mobile Systems
- Software Engineering for Embedded Systems
- Parallel Computing for third year undergraduate students

Adjunct Assistant Professor   **Fall 2016 – Spring 2018**
Egyptian E-learning University (EELU), Egypt
Selected Courses:
- Distributed Systems for Master Students in Software Engineering Program
- Computer Networks

Sessional Instructor   **Spring 2016**
Canadian International College (CIC), Egypt
Selected Courses:
- Introduction to Computers for undergraduate students
- Object-Oriented Programming in Java for undergraduate students

Lab Instructor   **Winter 2013**
Schulich School of Engineering, University of Calgary, AB, Canada
Selected Courses:
- ENGG225 "Fundamentals of Electrical Circuits and Machines"

Teaching assistant   **2009-2013**
Schulich School of Engineering, University of Calgary, AB ,Canada
Selected Courses:
- ENGG225 "Fundamentals of Electrical Circuits and Machines"
- ENGG233 "Computing For Engineers I"
- ENCM369 "Computer Organization"

- ENCM501 "Principles of Computer Architecture"

Assistant Lecturer   **2005-2007**
Faculty of Computers and Information, Menoufia University, Egypt
Selected Courses:
- Computer Networks for third year undergraduate students
- Advanced Computer Networks for fourth undergraduate year students

Cisco Networking Academy Program CCNA instructor   **2003-2007**
Local Cisco Networking Academy Program, Menuofia University, Egypt
- CCNA certification courses

C# and ADO.NET Instructor   **Spring 2006**
Center for Adults and Continuing Education, American University in Cairo, Egypt

Teaching Assistant   **Spring, Summer & Fall 2004**
School of Electronic Engineering, American University in Cairo, Egypt
Selected Courses:
- Digital Circuits for first year students

Teaching Assistant   **2002-2005**
Faculty of Computers and Information, Menoufia University, Egypt
Selected Courses:
- Logic Design I for first year undergraduate students
- Logic Design II for second year undergraduate students
- Introduction to Operating Systems for second year undergraduate students
- Computer Organization for second year undergraduate students
- Computer Networking for third year undergraduate students
- Advanced Computer Networking for fourth year undergraduate students

General duties of the above teaching positions:
- Preparing student materials, teaching 25-student tutorials and administering 100-student labs
- Grading student assignments, midterm and final exams and reporting to course instructors
- Invigilation and management of student exams

AWARDS AND FELLOWSHIPS

Faculty of Graduate Studies Travel Award   **2013**
University of Calgary, AB, Canada

Imperial College Energy and Performance Colloquium Travel Award   **2012**
London, UK.

Faculty of Graduate Studies Scholarship   **2011-2012**
University of Calgary, AB, Canada

Electrical and Computer Engineering Department Graduate Student Productivity Award **2011**
University of Calgary, AB, Canada

University Research Grants Committee Graduate Conference Travel Award   **2011**
University of Calgary, AB, Canada

Egyptian Governmental Doctoral Scholarship   **2007-2011**
Cairo, Egypt

Egyptian Ministry of Higher Education Student Grant   **1996-2000**
Cairo, Egypt

INTERNSHIPS AND PROFESSIONAL EXPERIENCE

Software Engineer   **2014 –2015**
GEOTrac Systems Inc., Alberta, Canada
- Design and development of mail messaging apps for Windows tablets
- Design and development of mail messaging client-server protocols
- Collaboration with a software team of project managers, team leaders, senior and junior software developers leading to the successful delivery of several IT projects the field of oil and gas industry.

Android Developer   **Feb-June 2015**
iTagTip Inc.& Schulich School of Engineering, University of Calgary, AB, Canada
- Implemented a location-based Android application

Part Time Software Developer   **Jul-Sep 2007**
IT department in Ceramica Cleopatra Group, Egypt
- Development of a project to build the company windows forms database application using C#, ADO.NET and SQL

Database Designer and Application Developer   **2000-2001**
Military service in the Egyptian army, Egypt
- Design and development of relational database applications using VBA, SQL and MS Access.
- Management of an Informix database backend installed on a UNIX server.
- Leading a team of 4 software developers and more than 10 data entry members.
- Successful delivery of ten database projects for the internal management of some units in the Egyptian army.

System Software Developer and Technical Support   **Jul-Oct 2000**
NCR, Egypt
- Development of software programs for Automated Teller Machine Systems.
- Technical support for a number of Banking ATM Networks.

Banking Application Development Intern   **Jul-Aug 1999**
IBM, Egypt
- Training on IBM San Francisco Financial development tool for building banking enterprise applications.
- Training on application development using Visual Age for Java toolset.

Maintenance and Technical Support Intern   **Jul-Aug 1997**
COMPU MASR, Egypt
- Training on repairing and assembly of computers.
- Training on system software and hardware driver installation.
- Collaborating with a team of hardware engineers to install and configure computer networks.

OTHER ACTIVITIES AND PROFESSIONAL MEMBERSHIPS

Research Papers Reviewer   **2018**
FUTURE GENERATION COMPUTER SYSTEMS, Elsevier

Graduation Projects Reviewer   **2017-2018**
Media Engineering & Technology, German University in Cairo (GUC)

IEEE student member   **2011-2013**

Academic Standing Committee Volunteer Member   **2011-2012**
Graduate Student Association, University of Calgary, AB, Canada

Session chair   **2008**