



CV

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Contact Details

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Job objectives

My main work experience is focused on teaching for different education levels from primary schools, secondary schools up to university undergraduate level. My target is to develop a job with academic or industrial institute that offers services in Information and Computing Technology. I have the ability and motivation to teach courses in different ICT topics for all levels. I also expect to work for an institute that offers facilities and support to help me maximize my research work and publications.

Research interests

My research interest is in the area of TCP congestion control techniques with a particular focus on the Random Early Detection (RED) strategy and its variants. The majority of my work is in developing RED based strategies to prevent network gateway overloading; thereby increasing the overall performance of TCP networks. I test my strategies using the NS-2 simulator to examine their effects on performance for TCP networks. Depending on new research on applying RED over wireless networks I have some interest in examining the effect of using RED based strategies on wireless networks. I also have interest in the area of data network management and information systems.

Tutoring and supervision

My methodology of teaching depends on classroom lectures. For practice, my students take in parallel related labs. I use in my lectures a variety of instructional materials provided by popular world publishers including interactive presentations, learning videos and flashes, computer applications, electrical pen as long as white board and colored pens. I use interactive class room activates for students to deepen their learning. Hence, teaching methods such as group discussion are practiced to enhance my intended learning outcomes. The materials of my courses are always available for my students online and I use the social media outside the office hours to answer their questions. In addition to teaching, I supervise students in their graduation projects.

Education

Murdoch University/Australia Ph.D. of Computer Science [Thesis title: Analysis and design of active queue management for TCP-RED congestion control strategies]	2008 - 2012
Al-Balqa'a Applied University/ JORDAN Master of Computer Science [Thesis title: TCP congestion control strategies]	2003 - 2005
Irbid National University/ JORDAN Bachelor of Computer Science [Graduate project in databases]	2000 - 2003
Ministry of Education/ JORDAN Secondary school [Passed the scientific branch test]	1996 – 1998

Work Experience

Assistant Dean <i>Hashemite University</i> <i>Prince Al-Husain Bin Abdullah II Faculty for Information Technology</i>	Sep. 2015 –Sep. 2016
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Duties and Achievements:

- Internal accreditation and industrial affairs.
- Assist in linking between the academic outcomes and the market needs.
- Organizing academic events and activities for the students and faculty members.
- Organizing events, services and activities between the Faculty and the local society.
- Organizing and supervising students training inside and outside the university.

Lecturer <i>Hashemite University</i> <i>Prince Al-Husain Bin Abdullah II Faculty for Information Technology</i>	February 2013 -Present
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Rank: Assistant Professor

Duties and Achievements:

- Teaching and coordinating different courses at the departments of CSA and CIS
- Prepared the plan for the master program in computer science
- Doing academic supervision and guidance for the students at the CSA department in different levels
- Participating in committees and attending workshops about the future plans of the college

Courses Taught:

- Computer Fundamentals and C++ Programming

- Object Oriented Programming on Java
- Advanced Object Oriented Programming on Java
- Computer Networks
- Databases
- Networks Management
- Management Information System

Teacher
Jordanian Ministry of Education

Aug 2004 - Feb 2008

Duties and Achievements:

- Teaching computer courses for primary and secondary Schools
- Computer training for teachers and employers
- Web pages and e-forums design for e-learning purposes
- ICDL training for the employers of the department of education
- Computer lab supervision and maintenance
- Assistance in the correction of the national computer test for secondary schools/ Ministry of Education.
- Assistance in network setup and data entry for parliament elections/ Ministry of interior.

Skills Summary

Programming Languages:

- Strong programming skills in C, C++ and Java including procedural, object orientation and data structure concepts.
- Intermediate skills in procedural programming using Perl, Fortran, Pascal and Basic.
- Basic skills in programming under Awk and Perl.
- Basic skills in using the Assembly language.

Operating Systems:

- Microsoft Windows: install, run, secure and maintain variant Microsoft windows versions including professional and server copies in different platforms.
- Linux OS: strong skills in using Gnome and KDE interface. Also good knowledge in using the shell for running programs, solving problems and managing the whole system.

Office tools:

- Microsoft office: Strong skills in all tools covered by the ICDL licence including Word, Excel, Access, Power Point Outlook and internet skills.
- Linux environment tools: Open office word processor, spread sheets and presentation. Strong skills in gedit, Latex and Lyx.
- Web Design: Strong skills in using MS-Publisher and MS-Frontpage

Networking:

- Good skills in network design and problem solving, taking advantages of the MCSA and CCNA courses.

Databases:

- Good SQL skills using the Microsoft SQL server management studio.
- Basic skills in Oracle and MS Access.

Hardware:

- Strong skills in Desktop computers maintenance.
- Basic skills in iPhone maintenance.

Theses and graduation projects examination

- HighMuJava: HighOrder Mutation tool for Java programs, Hashemite University, (2013), (graduation project)
- (EasyStay)New announcement system for tourism in Jordan's Highways and airport, Hashemite University, (2013), (graduation project)
- Absence and tardy tracking system/ graduation project, Hashemite University, (2014), (graduation project)

Theses and graduation projects supervision

- Abu Shuhil, R., Saadeh, A., et..al, (2016) "*Dental Clinic Management System*", Hashemite University, (graduation project)
- Elayan, A. Zaher, R., et..al, , (2016) "*Real Estate Website*", Hashemite University, (graduation project)
- Bajis, Q., Haneen, M., et..al, , (2016) "*Jordan Souq*", Hashemite University, (graduation project)
- Al-Khawaldeh, R., Al-Omary, A., et..al, , (2016) "*Restaurant Reservation System*", Hashemite University, (graduation project)

Current and achieved projects

- Hamadneh, N., (2016) "A Study on New TCP Congestion Control Techniques for Optimizing TCP Performance", Hashemite University, (Achieved)

Publications in journals

- Hamadneh, N., Murray, D., Dixon, M. and Cole, P. (2012) "Dynamic weight parameter for the Random Early Detection (RED) in TCP networks". *International*

Journal of New Computer Architectures and their Applications, 2 (2). pp. 342-352.

- Hamadneh, N., Murray, D., Dixon, M. and Cole, P. (2011) "Weighted RED (WTRED) strategy for TCP congestion control". *Communications in Computer and Information Science*, 252 (Part 2). pp. 421-434.
- Hamadneh, N., Murray, D., Dixon, M. and Cole, P. (2010) "QSRED, an algorithm to solve the mismatch between the microscopic and macroscopic behaviour of RED gateways". *IJCSNS International Journal of Computer Science and Network Security*, 10 (11). pp. 63-70.
- Mohammad Bsoul, Ahmed F. Otoom, Alaa E. Abdallah, Nabhan Hamadneh. (2017) "An Enhanced Bandwidth Hierarchy Based Replication Strategy for Dynamic Replication in Data Grid". *Multiagent and Grid Systems* 13(2):163-175.

Publications in conferences

- Hamadneh, N., Dixon, M., Cole, P. and Murray, D. (2011) "A third drop level for TCP-RED congestion control strategy". *Proceedings of World Academy of Science, Engineering and Technology*, 81 (57). pp. 892-898.
- Nabhan Hamadneh, David Murray. (2017) "Private Subnetting One (PS1), An Algorithm for Private IPv4 Address Allocation". *The 7th International Conference on Information Communication and Management*. Moscow.

Professional Affiliations and Academic Committees

- CSTA: The Computer Science Teachers Association, URL: <http://www.csta.acm.org>.
- ACS: The Australian Computer Society, URL: <http://www.acs.org.au>.
- Committee of academic research / CSA department at Hashemite University
- Committee of employment and upgrading / CSA department at Hashemite University
- Committee of graduate studies / CSA department at Hashemite University
- Committee of electrical education and quality assurance / CSA department at Hashemite University
- Committee of the CSA course plan / CSA department at Hashemite University
- Committee of course assessment / CSA department at Hashemite University
- The Committee for preparing the master program of CSA/ Hashemite University
- The committee for linkage between the academic outcomes and the market needs / cooperation between the Faculty of IT and the Jordanian ministry of telecommunication

Training

<u>Course</u>	<u>Institute</u>	<u>Hours</u>	<u>Year</u>
Advance Computer Maintenance	MTC/JORDAN	50	2003
ORACLE	MTC/JORDAN	50	2003
New Teachers	Ministry of Education/JORDAN	50	2005
MCSA	NASA/JORDAN	50	2006
INTEL	Ministry of Education/JORDAN	130	2007
CCNA	CTS/JORDAN	90	2013
New University Lecturers	Hashemite University/JORDAN	50	2013

Languages

<u>Language</u>	<u>Level</u>	<u>Used in</u>	<u>Years</u>
Arabic	Excellent	JORDAN (Mother Language) Primary and Secondary Schools	12
English	Excellent	JORDAN & AUSTRALIA Undergraduate and Postgraduate	12

English language courses

- English for beginners (Yarmuk University/ Jordan 1995) 4 weeks
- TOEFL preparation course (Yarmuk University/ Jordan 2007) 4 weeks
- General English course (UTS University/ Australia 2008) 10 weeks
- IELTS preparation course (UTS University/ Australia 2008) 10 weeks

English Language workshops

(All attended at Murdoch University/ Australia from 2008 to 2012)

- Good Academic Writing Skills
- Using Information From Other Sources
- Writing Clearly and Presenting Your Ideas Effectively

Fellowships, Scholarships and Awards

- Ph.D. Completion fellowship, Murdoch University, AUSTRALIA.
- Ph.D. Completion Scholarship, Hashemite University, JORDAN.
- Best paper award, ICIEIS 2011 conference, MALAYSIA.
- Queen Rania award for best e-learning project, Ministry of Education, JORDAN.
- Honour of Prince El-Hassen Youth Award about preparing students to pass the IT part of the award/JORDAN.

- Gifted and outstanding student for 3 years at Aqraba secondary school, JORDAN.
- Honour of being school presenter for 4 years at Aqraba secondary school, JORDAN.

Workshops

(All attended at Murdoch University/ Australia from 2008 to 2012)

Academic workshops

- Starting to Write Your Thesis (7 days/ 3 hours a session)
- The Making and Mapping of an Argument in a Postgraduate Thesis (3 days/3 hours a session)
- Moving towards completion, presentation and publication (5 days/ 3 hours a session)

Research skills workshops

- Statistics (the basics)
- Databases and E-Journals (an overview)
- Using End-Note in your research
- Issues of Copyright, Intellectual Property, Authorship and the Impact of Electronic Thesis Submission
- How To Run A Survey

Managing Research Degree workshops

- Managing Your Candidature - Maintaining Your Focus
- Managing Your Candidature - Submitting
- The Thesis Examination Process

Computer Skills workshops

- Word Tables
- Word Styles
- Word Extras
- Excel Charts
- Excel Intermediate
- Excel Analysis of Data Sets
- Solve Your Word or Excel Problems

Hobbies and Interests

Sports

- Currently, practicing soccer, swimming, gym exercises, volleyball, MMA.
- Used to be a Member of the university volleyball team
- Currently a member of the staff soccer team

Community service and volunteering work

- Attended many seminars in first aid and gave support in emergencies
- Attended many campings for volunteering work provided by the Jordanian Arm Force and the Civil Defense force.
- Attended Defensive driving course.
- Attended courses of supporting and dealing with disabled people.
- Giving free courses in computing for university and school students.

Travelling

Referees

- **Peter Cole:** School of IT, Dean, Murdoch University, ECL 3.041 South Street, Murdoch, WA 6150, Australia, Phone: +61 8 9360 2918, p.cole@murdoch.edu.au, **(Dean)**.
 - **David Murray :** School of IT, lecturer , Murdoch University, ECL 3.048, South Street, Murdoch, WA 6150, Australia, Phone: +61 8 9360 2723, d.murray@murdoch.edu.au. **(Ph.D. Principle Supervisor)**.
 - **Michael Dixon:** School of IT, lecturer, Murdoch university, ECL 3.047, South Street, Murdoch, WA 6150, Australia, Phone: +61 8 9360 6086, m.dixon@murdoch.edu.au. **(Ph.D. Co-Supervisor)**.
 - **Feras Hanandeh:** Prince Al-Husain Bin Abdullah II Faculty for Information Technology, Hashemite University, IT 233, P.O Box 150459, Zarqa 13115, Jordan, Phone: +962(5)3903333- 5066, Fax: 0096253826625, feras@hu.edu.jo, **(Dean)**.
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