### Curriculum Vitae

## **Mohammad Alsmirat**

## PERSONAL INFORMATION

# Mohammad Alsmirat



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mamsirat@just.edu.jo

# POSITION Assistant Professor of Computer Science

#### WORK EXPERIENCE

# September 2013-present

## Assistant Professor

Jordan University of Science and Technology, Irbid, Jordan

- Teach graduate and undergraduate computer science courses.
- Prepare the course entirely.
- Supervise Master Students in their thesis.
- Supervise senior undergraduate student during their final project
- Review internal project proposals.
- Serve on hiring committees.
- Serve on graduate admissions committees.
- Participate in both undergraduate and graduate curriculum review.

**Business or sector Education** 

# January 2013-September 2013

# Research and Development Engineer

General Motors, USA

I conducted research on how to utilize V2V communication for car crash avoidance applications. In particular, I conducted research on the scalability of DSRC-based V2V networks, analysed current congestion control algorithms, and proposed new algorithms to solve the congestion problem in such networks.

**Business or sector Industry** 

# August 2007-January 2013

# **Graduate Teaching Assistant**

Electrical and Computer Engineering Department, Wayne State University, USA

- Taught three laboratory courses, namely: Digital Circuit Laboratory (Undergraduate Sophomore level), Computer Organization Laboratory (Undergraduate Senior level), and Introduction to microcontroller laboratory according to a systematic plan of lectures, demonstrations, and small applied projects
- Prepared and administered all lab course related exams and projects and marked them according to a plan to assess the student outcomes in compliance with the Accredited Board for Engineering and Technology (ABET) standards.
- Developed the lab course syllabus and I prepared class notes and courses outlines.

**Business or sector Education** 

# January 2007-January 2013

# Research and Development Engineer

Multimedia Computing and Networking Research Lab, Wayne State University, USA

### Curriculum Vitae

## Mohammad Alsmirat

- Developed an automated video surveillance system simulator that was based on OPNET.
- Developed a Video-on-Demand server simulator using C.
- Developed a JPEG image decoder using C.
- Developed a Motion JPEG video streamer using C.
- Developed a MIPS processor simulator using Verilog.
- Developed some simple applications using the Motorola 6800 microcontroller.
- Developed an image classification system using MATLAB.
- Designed and developed a 2D game using Microsoft XNA and C# for Windows platform.

Business or sector Research and Development

## Replace with dates (from - to)

# Instructor (Full Time Lecturer)

Jordan University of Science and Technology, Irbid, Jordan

 taught the following courses: CS 100 Computer Skills, CS 101 Introduction to Information Technology, CS 112 Introduction to Programming, CS 115 C++ programming, CS 211 Data Structures, and CS 311 UNIX Programming.

**Business or sector Education** 

# **EDUCATION AND TRAINING**

# January 2007-April 2013

# PhD in Computer Engineering

4.0/4.0

Wayne State University, USA

- Gained a valuable research experience in multimedia networks and system field.
- Gained image processing and computer vision research skills.

## Replace with dates (from - to)

# Master of Science in Computer Science

3.8/4.0

New York institute of technology

Took many advanced courses in the computer science field such as Advanced Algorithms,
 Advanced operating systems, Advanced Al, Advanced Computer Organization, Advanced Networks,
 and many others.

## Replace with dates (from - to)

## **Bachelors in Computer Science**

Graduated with Honour

Jordan University of Science and Technology, Jordan

- Programming (C, C++, JAVA)
- Computer Science Core (Operating Systems, Databases, Networks, Software engineering, Computation Theory, Computer Architecture, Compiler Design, Digital Design, Microprocessor)
- Math (Calculus, probabilities, statistics, linear algebra, discrete math, numerical)
- Web development.

# PERSONAL SKILLS

Mother tongue(s)

Arabic

# Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT

English

#### Curriculum Vitae

### Mohammad Alsmirat

### Communication skills

 Excellent communication skills in both Arabic and English gained through my teaching experience and GM work experience as we had to do a lot of group meeting.

## Organisational / managerial skills

 Leadership gained through my student supervising experience and also through leading research groups at Jordan University of Science and Technology and General Motors.

## Job-related skills

- Good teaching and course management skills (my student reviews are always above 85%)
- Very good programming skills.
- Extensive simulation experience.

### Computer skills

- Use both Linux (UNIX) and windows environment professionally
- Very good programming skills

#### ADDITIONAL INFORMATION

# Publications Projects Conferences Seminars Honours and awards Memberships References

### **Publications**

- Alawneh, Khaled; Al-dwiekat, Mays; Alsmirat, Mohammad; Al-Ayyoub, Mahmoud, "Computer-aided diagnosis of lumbar disc herniation," Information and Communication Systems (ICICS), 2015 6th International Conference on , vol., no., pp.286,291, 7-9 April 2015
- Mhaidat, Y.; Alsmirat, M.; Badarneh, O.S.; Jararweh, Y.; Bany Salameh, H.A., "A cross-layer video multicasting routing protocol for cognitive radio networks," Wireless and Mobile Computing, Networking and Communications (WiMob), 2014 IEEE 10th International Conference on, vol., no., pp.384,389, 8-10 Oct. 2014
- Alsmirat, M.A.; Sarhan, N.J., "Cross-Layer Optimization and Effective Airtime Estimation for Wireless Video Streaming," Computer Communications and Networks (ICCCN), 2012 21st International Conference on , vol., no., pp.1,7, July 30 2012-Aug. 2 2012
- Detailed Performance and Waiting-Time Predictability Analysis of Scheduling Options in On-Demand Video Streaming, EURASIP J. Image and Video Processing 2010 (2010)
- Waiting-time prediction in scalable on-demand video streaming. <u>TOMCCAP 6(2)</u> (2010)
- Performance and Waiting-Time Predictability Analysis of Design Options in Cost-Based Scheduling for Scalable Media Streaming. <u>MMM 2009</u>: 150-162
- Predictive cost-based scheduling for scalable media streaming. ICME 2008: 857-860
- Analysis of waiting-time predictability in scalable media streaming. ACM Multimedia 2007: 727-736

## Current research Projects

- A Realistic NS3-based Automated Wireless Video Surveillance Simulation Framework.
- Congestion Control in Vehicle to Vehicle communication for Collision Avoidance Applications.
- Diagnosing Lumber Disk Herniation using Computer.
- Virtualization over Cognitive Radio Networks.

## Honours and awards

- Member of Tau Beta Pi engineering honour society. Wayne State University, Detroit, MI, November 2011.
- Outstanding Teaching Assistant Service Award, Wayne State University, Detroit, MI, April 2011.
- Full PhD Scholarship, Wayne State University, Detroit, MI, January 2007.
- Full Master degree sponsorship, Jordan University of Science and Technology, Irbid, Jordan, 2002.
- Listed on Dean's Honour List, Jordan University of Science and Technology, Irbid, Jordan, 1998-2002.
- Listed on the President's Honor List, Jordan University of Science and Technology, Irbid, Jordan, 2000-2002.
- Ministry of High Education Sponsorship during my Bachelor study, Jordan University of Science and Technology, Irbid, Jordan, 1999-2002.
- Ranked first in my High school, Ramtha Secondary School, Ramtha, Jordan, 1998.