

# Taghreed Al Tamimi, Ph.D.

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## PROFILE

A Ph.D. holder of Computer Engineering - specialization of Software Engineering with excellent record of teaching. Eager to learn new things, solving complex problems, and most importantly, strong interpersonal skills are equipped with a strong foundation in software engineering and computer science. Expert in Model-Driven Engineering, collaborated with other researchers in one of the world's top universities to produce research in Model Transformation to automatically generate performance models from UML software design models. Professional experience in Oracle SQL, PL/SQL, designing and developing Oracle database environment. Strong ability to lead through influence and collaborate with cross-functional professionals to drive organizational improvement. Fluent in English and Arabic.

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## EDUCATION

<b>Ph.D. in Systems and Computer Engineering</b>	2014-2019
Carleton University, Ottawa	
Thesis: Incremental Change Propagation from Software to Performance Models	
<a href="https://curve.carleton.ca/f83b5429-ead4-4f13-bc62-76c42d2b87d7">https://curve.carleton.ca/f83b5429-ead4-4f13-bc62-76c42d2b87d7</a>	
Supervisor: Dorina Petriu	
<b>Master in Computer Information Systems</b>	2005-2007
The Arab Academy for Banking and Financial Sciences, Jordan	
Grade Excellent	
<b>B.Sc. in Computer Science</b>	1998-2002
University of Yarmouk, Jordan	

## HONOURS AND AWARDS

Ontario Graduate Scholarship (15000 \$ for three terms)	2017-2018
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## Professional Engineer (P.Eng.)

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## TEACHING EXPERIENCE

Senior Lecturer, Software Engineering Department	Alfaisal University, Riyadh	2023-Current
Partial load Professor, School of Advanced Technology	Algonquin College, Ottawa	2019-2023
Contract Instructor, Systems and Computer Engineering Department	Carleton University, Ottawa	2020-2023
Teaching Assistant, Systems and Computer Engineering Department	Carleton University, Ottawa	2013-2019

## TEACHING DUTIES

- Prepared course materials, deliver lectures and leading discussions.
- Redesigned course outline and restructured course material to support learning process.
- Revised the current curriculum by contributing in updating the current one.
- Guided undergrad student's course projects, provided feedback, evaluated their projects and presentations.
- Instructed students in weekly labs and theory classes and provided effective timely and appropriate feedback to students to support their learning.
- Proctored and graded exams, entered and maintained grades.
- Created tests and homework assignments, including writing up problem solutions to evaluate students' performance and ensure that these assessments are aligned with course objectives.
- Hold office hours for students who need extra help.

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## PROFESSIONAL EXPERIENCE

PNF – Amman, JORDAN.

2004-2012

### Senior Oracle Developer,

Participated as a team member in medium-size Oracle database management systems implementation (HR system, accounting system and health insurance system) through full project life cycle. I was involved in all phases of the SDLC (Software Development Life Cycle) from analysis, design, development, testing, implementation and maintenance.

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## RESEARCH EXPERIENCE

**Postdoctoral Fellow**, Advanced Real-Time Simulation Laboratory (ARSLab)

2020

Carleton University, Ottawa

- Supervised coop students' projects in developing Cell-DEVS models for airborne transmission of COVID-19 indoors.
- Conducting research in modeling and simulation to investigate means of automatic generation of executable models derived from systems specifications based on the Discrete-Event System specification (DEVS) formalism.
- Devs models created and coded in C++ then compiled and executed using Cadmium, a tool for Discrete-Event modeling and simulation, based on the DEVS formalism.

**Research Assistant**, Real-Time and Distributed Systems Group (RAD)

2014-2019

Carleton University, Ottawa

- Developed an Incremental Change Propagation Algorithm (ICP) to propagate the changes from UML design model to Layered Queuing Network (LQN) performance model for the verification of Non-Functional Properties (NFP) such as performance.

- Implemented the ICP algorithm with Epsilon Object Language (EOL), Epsilon Transformation Language (ETL) adopted in the industry and intended for model transformation and model management.
- Reused off-the-shelf tools (such as EMF Compare, Epsilon Haetae, LQN Solver) and integrated them in a software development process.

## PUBLICATIONS

### Published:

- **Taghreed Altamimi**, Hoda Khalil, Vinu Rajus, Ryan Carriere and Gabriel Wainer, Cell-DEVS models with BIM integration for airborne transmission of COVID-19 indoors, In Proceedings of the 12th annual Symposium on Simulation for Architecture and Urban Design SimAUD 2021.
- **Taghreed Altamimi** and Dorina C. Petriu. "Incremental change propagation from UML software models to LQN performance models", In Proceedings of the 27th Annual International Conference on Computer Science and Software Engineering CASCON'17.
- Chen Li, **Taghreed Altamimi**, Mana Hassanzadeh Zargari, Giuliano Casale, and Dorina C. Petriu, "Tulsa: A Tool for Transforming UML to Layered Queueing Networks for Performance Analysis of Data Intensive Applications," In Proceedings of International Conference on Quantitative Evaluation of Systems QEST 2017, Springer LNCS vol. 10503, pp. 295-299, 2017.
- **Taghreed Altamimi**, Mana Hassanzadeh Zargari, and Dorina C. Petriu, "Performance analysis roundtrip : automatic generation of performance models and results feedback using cross-model trace links", In Proceedings of the 26th Annual International Conference on Computer Science and Software Engineering CASCON'16, pp. 208-217, 2016.
- Ahmad Alrababah , **Taghreed Altamimi** and Najat Shalash. (2014). A New Model for Software Engineering Systems Quality Improvement. Research Journal of Applied Sciences, Engineering and Technology. 7. 2724-2728. 10.19026/rjaset.7.592.

## PEDAGOGICAL WORKSHOPS

Carleton University, Ottawa

- Providing Effective Feedback to Students
- Interactions within Intercultural Classroom Ecologies
- Conferences and Giving Effective Presentations
- Teaching without Teaching: Improving your Class Room Discussions
- Successful Teaching: A how to Guide, Carleton University
- Active learning strategies in tutorials and problem analysis sessions
- Grading Strategies
- Effective Tutorials
- Efficient and Equitable Grading
- Providing Feedback to Enhance Student Learning and Engagement

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## Services

### POSTERS AND SEMINARS

Carleton University, Ottawa, Posters presented at Real-time and Distributed Systems (RADS) research day

- Performance analysis roundtrip: automatic generation of performance models and results feedback using cross-model trace links
- Co-evolution of software and analysis models

Carleton University, Ottawa, Seminar presented at Real-time and Distributed Systems (RADS) research day

- Incremental Change Propagation from UML Software Models to LQN Performance Models

### **Short Talks**

Toronto, 27th Annual International Conference on Computer Science and Software Engineering  
CASCON'17

- Gave a talk to high school girls students about women in engineering (challenges and motivations)

Oshawa, Ontario Tech University

- Hold a Seminar about Model-Driven Engineering for undergraduate students in Computer science

### **Reviewing Research Journal Papers**

- Reviewed different journal papers in Software Engineering field

### **Volunteering**

Ottawa, 27<sup>th</sup> International Symposium on Software Reliability Engineering (ISSRE)

- Helped in the registration process for ISSRE conference.

### **Competition**

- Awarded the best hack for Human award. Architecture, Engineering, Construction (AEC), Hackathon