#### Moataz H. Khalil

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#### **EDUCATION:**

Doctor of Philosophy in Computer Science. Except summer 2018 Faculty of Science, University of Alexandria, Egypt. Dissertation title: "Application and Situation-aware Smart Failure-Prediction and Efficient-Recovery Framework for Cloud Computing Resilience" Advisor: Prof. Adel El-Maghreb (Louisville, USA), Prof. Walaa Sheta (Alexandria, Egypt). 2010 Master of Science in Computer Science Faculty of Science, Alexandria University, Egypt.

Bachelor of Science in Computer of Science

Faculty of Science, Alexandria University, Egypt.

#### **Research INTERESTING:**

Enhancing living environment of cloud computing by keeping cloud computing (hardware, software) more resilience and reliable. The mean reason for resilience degration are failures and attacks. So, improving system resilience and reliability, failure management required. The failure management divides to prediction management, and recovery management. My research is working for developing monitoring surrounding environment for predicting failure. Also, another objects of proposed work are: 1- reducing number of virtual machines migration to avoid degradation system performance. 2- According to reduce migration, our work aims to reduce Service Level Agreement (SLA) where SLA is critical protocol measuring of cloud computing performance. Another phase of proposed work is energy saving.

#### **RESEARCH EXPERIENCE:**

Researcher assistant

2017

Computer science and Computer Engineering (CSCE) – Speed School – University of Louisville. Assistant Researcher 2010- Present

Computer Based Engineering Applications – IRI Institute – City of Scientific Research – Egypt

- 1- Member of group of parallel computing in IRI institute.
- 2- Collaborate with IRI staff for developing Cloud Computing System for IRI institute.
- 3- Collaborate with IRI staff for developing testbed for cloud computing
- 4- Propose parallel task scheduling technique using Markov clustering algorithms.
- 5- Collaborate with IRI staff for developing technique for detecting mines in hyper -spectral image based on EM algorithm.
- 6- Now, going to develop failure profiling for nodes and tasks and user requests.

**Research Assistant** 

2005-2010

Computer Based Engineering Applications – IRI Institute – City of Scientific Research - Egypt

- 1- Design model of Proton Exchange Fuel Cell (PEMFC) for getting better performance with different initial conditions.
- 2- Implement Neural Network mechanism for predication the efficiency of PEMFC with change surrounding environment conditions.

## **TEACHING:**

2003

1- Preparing and teaching Word Microsoft, Access Microsoft, and SAS Software at IRI institute.

# **SCHOLARSHIP:**

- Louisville University, Speed School, Computer Science and Engineering, fall 2015 fall 2017.
- 2- Egypt Japan University of Science and Technology (E-Just), Computer Science and Engineering School, fall 2011.

#### **PUBLICATION:**

- 1- Moataz H.Khalil, Adel S. Elmaghraby, "charactizing and model for Hardware Failure in Large Scale Cloud Computing Environment", In processing of 16<sup>th</sup> IEEE International Symposium on Signal Processing and Information Technology, Cyprus, December - 2016.
- 2- Moataz Hassan Khalil, Walaa Sheta, Adel S. Elmaghraby, "Performance Analysis for Dynamic Task Migration in Cloud Computing", In Processing of 31st International Conference on Computers and Their Applications (CATA), 4-6 April, Las Vegas, April -2016.
- 3- M. ELSayed Youssef, Moataz H.Khalil, Khairia E.AL-NAdi, "Neural Network Modeling for Proton Exchange Membrane Fuel Cell (PEMFC)", Advances in information Sciences and Services Sciences, Vol. 2, No. 2, June 2010.
- 4- M. ELSayed Youssef, Khairia E.AL-NAdi, Moataz H.Khalil, "Lumped Model for Proton Exchange Membrane Fuel Cell (PEMFC)", International Journal of Electrochemical Science, Vol.5, NO.1, January 2010.

### **CONFERENCE PRESTATION:**

1- Moataz Hassan Khalil, Walaa Sheta, Adel S. Elmaghraby, "Performance Analysis for Dynamic Task Migration in Cloud Computing", In Processing of 31st International Conference on Computers and Their Applications (CATA), 4-6 April, Las Vegas, 2016.

### **BACKGROUND:**

Database, Data Structure, Data Mining, Object Oriented Programming, Machine Learning, Parallel Processing, Cloud Computing, Computer Architecture, Graph Theory.

#### **Technical SKILLS:**

- 1- Programming languages and mathematical packages: Matlab, C, C#, and Java Script, MPI, OpenMP, Cuda.
- 2- Computer aided design/engineering: CLOUDSim, MiniTab, and FEMLAB.
- 3- Other: Linux (Ubuntu).

#### LANGUAGE:

- 1- ENGLISH: Good.
- 2- ARABIC: Fluent.

### **Personal Skill:**

- 1- Interpersonal skills: Actively listening to people and stimulating interest and discussion. Exchanged constructive feedback and support and learned delegating responsibility.
- 2- Adaptability: Able to work both independently and in team settings. Adapted to living abroad, increased my command of English, learned perseverance and self-motivation.
- 3- Management and organization: Organized work to achieve goals and targets on time, set realistic objectives.

### **REFERENCE:**

- Prof. Adel El-Maghraby. Department Head, Computer Science and Engineering, University of Louisville. (+01) 502-262-1392, <u>aselma01@louisville.edu</u>.
   Prof. Walaa Sheta
- 2- Prof. Walaa Sheta.
  Institute Dean, IRI Institute, City of Research and Technology Applications, Egypt. (+20) 010-085-54449, <u>wmshet01@louisville.edu</u>.
- 3- Dr. Ashraf El-Said. Assistant Professor, Mathematic & Computer Science, Faculty of Science, Alexandria University, Alexandria, Egypt. (+20) 01113379470, <u>ashrafaf73@yahoo.com</u>.