

BIOGRAPHICAL SKETCH

Alaeddine Saadaoui was born in Feriana, Tunisia. He attended the Preparatory Institute for Engineering Studies in Tunis in 2001 to enter the National School of Computer Sciences in Manouba, Tunisia in 2003. He received his Bachelor of Science in Computer Science in 2006 and a Master of Science in Computer Science in 2008. In 2010, he moved to the USA to continue his studies at Marshall University, WV, USA and received a Master of Art in Mathematics in 2012.

Currently, he is a Ph.D. candidate in the Department of Computer Science at Tennessee Tech University, TN, USA. He worked as a teaching assistant and taught C++ and data structure courses for three years at Tennessee Tech University. His area of research is the deployment of web services and micro-services in cloud environments. He aims to implement portable solutions that are flexible and can be integrated with existing systems. At the moment, he is doing Co-op at a consulting company and working on the design and implementation of micro-services using cloud platforms.

EDUCATION

Ph.D., (Expected graduation: December 2018)
Tennessee Tech University

M.A., Mathematics, 2012
Marshall University, USA

M.S., Computer Science, 2008
National School of Computer Sciences, Tunisia

B.S., Computer Science, 2006
National School of Computer Sciences, Tunisia



College of Engineering

TENNESSEE TECH

The Department of
Computer Science

Announces the Dissertation Defense
Of

Saadaoui Alaeddine

In Partial Fulfillment of the Requirements

For the degree of
Doctorate of Philosophy

Friday, November 9th, 2018 at 8:30 am
Held at

Clement Hall (CLEM), Room 323

University Drive

Tennessee Technological University

Cookeville, TN, 38505

FIELD OF STUDY

Computer Science

DISSERTATION TOPIC

Migration of Web Services in Hybrid Clouds.

EXAMINING COMMITTEE

Dr. Stephen L. Scott (Co-Chairperson)

Dr. Doug Talbert (Co-Chairperson)

Dr. Sheikh Ghafoor (Committee member)

Dr. Martha Kosa (Committee member)

Dr. Mohamed Mahmoud (Committee member)

ABSTRACT

Cloud computing enables the delivery of on demand computing, storage and network services over the Internet on a pay-for-use basis. The diversity of cloud providers and elasticity of cloud services offer flexibility to cloud clients to select cloud solutions, and dynamically manage resources to satisfy their needs.

While cloud has cost saving and manageability benefits, the cloud client could face serious issues related to service availability, security, limited control and cloud platform dependencies. To tackle the cloud issues, migration of web services deployed on the cloud can be adopted as a flexible solution to manage portable services on heterogeneous cloud platforms.

This dissertation focuses on migration of web services in hybrid clouds. The migration solution is a lightweight framework based on web services to manage web services and their deployed environment composed of cloud instances. The framework is flexible, platform independent, and it provides answers to a set of issues related to adopting cloud solutions. In addition, the migration solution is loosely coupled with the target web services to migrate while maintaining their design properties. Finally, the use of web services to implement the migration framework provides a flexibility to extend the migration solution and add more management and control features.