

Curriculum Vitae

Personal Information

Full Name: Marwa Hussein Mohamed Abd-Elreheim

Current Position: Lecturer at Information Systems department, Faculty of Computer Science and Information Systems, Assiut University, Egypt.

Date of Birth: Nov 8th 1984

Nationality: Egyptian

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Education

Nov. 2023	Department of Information Systems, Faculty of Computer Science and Information systems, Assiut University, Assiut, Egypt. Ph.D. thesis defense
Oct. 2011	Department of Information Systems, Faculty of Computer Science and Information systems, Cairo University, Cairo, Egypt. M.Sc. thesis defense
2006-2007	Department of Information Systems, Faculty of Computer Science and Information systems, Cairo University, Cairo, Egypt. M.Sc. preparatory year, overall grade 84.75% (Very Good).
2001-2005	Information Systems Department, Faculty of Computer Science and Information systems, Assuit University, Assuit, Egypt. B.Sc. overall grade 87.96% (Distinction with degree of honor). Graduation project grade: Excellent
1999-2001	Khadija Youssef Secondary School, Assuit, Egypt, General Certificate Secondary Education, Overall grade of the two years: 97.8% (Excellent)

Ph.D. Thesis

Thesis Title: An Effective and Personalized Ontology Recommendation System to Support Ontology Development and Reuse

- Propose a novel context-based semantic matching algorithm that identifies pairs of equivalent concepts in terms of the context of their ontologies.

- Develop an effective ontology recommendation system which helps the user in the iterative ontology development and reuse process.
- Utilize the reinforcement learning technique to personalize the recommendations according to user's preferences.
- Demonstrate the effectiveness of our ontology recommendation system by developing a prototype, then evaluate the performance of the proposed recommender system using different evaluation metrics which prove its effectiveness in generating and ranking ontology recommendations to the user.

M.Sc. Thesis

Thesis Title: Ontology-Driven Content mining for bioinformatics Databases.

- Using Semantic Web technology to build a Disease-related Ontology
- Integrating data from various sources and bioinformatics databases.
- Develop a data mining algorithm to extract useful knowledge from the Disease-related Ontology.
- Examine the developed framework in data to get useful information about some diseases, such as colon cancer, prostate cancer and acute myeloid leukemia.

Publications

El-Sharkawi, M., Hussein, M., & Soliman, T. H. A. (2012, November). Mining disease integrated ontology. In *Proceedings of the 2012 IEEE 12th International Conference on Bioinformatics & Bioengineering (BIBE)* (pp. 40-45). IEEE Computer Society.

Abdelreheim, Marwa, Friederike Klan, and Taysir Hassan A. Soliman. "Towards Personalized Support for Ontology Selection." *Grundlagen von Datenbanken*. 2017.

Abdelreheim, Marwa, Friederike Klan, and Taysir Soliman. "Towards an Interactive Approach for Ontology Recommendation and Reuse." (2018).

Abdelreheim, Marwa, Friederike Klan, and Taysir Hassan A. Soliman. "An Evidence-Based, Contextual Approach to the Validation of Concept Alignments to Support Ontology Reuse." *Qurator*. 2020.

Abdelreheim, Marwa, Taysir Hassan A. Soliman, and Friederike Klan. "A personalized ontology recommendation system to effectively support ontology development by reuse." *Future Internet* 15.10 (2023): 331.

Research Projects & Student Exchange Programs

- BioDialog: Intercultural Dialog through Biodiversity Informatics
A member of Biodialog project for 4 years and organize and participates in the following events:
 - The First BioDialog Workshop on Biodiversity Informatics in Assiut university, Egypt. (November 2015)

- The Second BioDialog Workshop on Biodiversity Informatics in Sfax University, Tunisia. (November 2016)
- The First BioDialog Summer School on Biodiversity Informatics, Hurghada, Egypt (August 2017)
- The Second BioDialog Summer School on Biodiversity Informatics in Hammamet, Tunisia. (May 2018)
- Biodialog Exhibition on Biodiversity Informatics Hosted by 10th International Conference on Ecological Informatics (ICEI 2018) 24-28 September 2018, Jena, Germany.
- A member of an STDF research project: Developing a Big data platform for analyzing and preventing COVID-19 Pandemic in Time and Geography.

Teaching Experience

Experience in teaching from 2005 to present

In the following courses: Fundamentals of Database concepts, Data mining, System analysis and Design, UML, Big data, Java, Technical writing, and Scientific research methodologies.

Languages

Arabic: Mother Tongue

English: Very Good

Work Experience

2024 to present	Lecturer Faculty of Computers and Information Systems Information Systems Department Assiut University
2012- 2023	Assistant Lecturer Faculty of Computers and Information Systems Information Systems Department Assiut University
2006- 2012	Demonstrator Faculty of Computers and Information Systems Information Systems Department Assiut University

Skills

Computer Skills

Programming languages: Java, SQL, C++, Python, R

Web development Languages: XML, OWL, RDF, ASP, PHP, JavaScript

Database Management systems: Microsoft Access, MySQL, SQL server

Technical Skills

Analysis and Design Skills: Write the Software Requirement document, the Entity Relationship Diagram (ERD), and other Low Level Design and High Level Design documents.

Project Management Skills: Follow-up all project development phases (analysis, design, development, testing, bug fixing, deployment, operational execution). Also, developing risk plan, and project estimation including writing uses cases and defining project resources, assign tasks to project resources using Microsoft project management tool. And finally, track project status till the end of the project.

Software Process Implementation Skills: Aware with software development life cycles; e.g., iterative and Agile approaches.

Communication Skills

Highly organized and have good communication skills and ability to give presentations in a wide range of audiences.

References

Prof.: Taysir Hassan Abd-Elhamid Soliman

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Tel: +20 1000 104 903

Prof.: Mohamed Ezz-Eldin El-Sharkawy

Information systems Department

Faculty of Computers and Information - Cairo University – Cairo

Email: m.elsharkawi@fci-cu.edu.eg

Dr: Friederike Klan

Department Head, Institute of Data Science, German Aerospace Center (DLR)

Email: friederike.klan@dlr.de

Prof.: Birgita König-Ries

Heinz-Nixdorf Endowed Chair for Distributed Information Systems, University of Jena, Germany

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