

Objective

I am on the lookout for a challenging opportunity to hone my skills in a top-tier institution, university, or organization. My ultimate goal is to establish a dynamic research and development (R&D) career that encompasses teaching, research, and management roles.

Online Presence

@ Google Scholar, @ORCID, @Scopus, @Researcher ID, @Academia, @ Research Gate, @LinkedIn

Summary

With a postgraduate degree in computer science and a decade of experience in academia, coupled with several years of software development experience, I have honed my ability to collaborate with others and achieve outstanding results. I am on the lookout for a challenging position in a thriving organization that values my academic background and skills and provides me with opportunities to apply my expertise in computer science and academia. My unwavering passion for learning and exploring new ideas in Artificial Intelligence, Machine Learning, and Data Science, as well as Teaching and Education, drives me to constantly improve my skills and knowledge.

Education

09/2020-12/2023

Ph.D., in Computer Science, Faculty of Science, Alexandria University, Egypt.

- Dissertation: Artificial Intelligence Applications in Solar Radiation Modeling and Estimation (*Study in English*).
- Advisors: Assoc. Dr. Gasser Hassan (IRI), and Assoc. Prof. Ashraf Said.
- Keywords No.: 66,618 words, Period: 3 Y, 2 M [**9 Papers (4 Published + 5 Under review)**].

01/2017-06/2018

Ph.D. Preliminary Courses, Faculty of Science, Alexandria University, Egypt.

- Final Grade: CGPA 3.925 / 4, (*Study in English*). Four courses and Seminar in Computer Science.

02/2014-09/2016

M.Sc., in Computer Science, Faculty of Science, Zagazig University, Egypt.

- Dissertation: Computer Science Applications in Renewable Energy (*Study in English*).
- Advisors: Prof. Mohamed El-Sayed, Keywords No.: 37,641 words, Period: 2 Y, 7 M (**5 Publications**).

09/2004-05/2008

B.Sc., in Mathematics and Computer Science, Faculty of Science, Zagazig University, Egypt.

- Final Grade: Very good with honors 80.77%, Third of class, (*Study in English*).
- Graduation Project: Webcams Security System.

Experience*Academic Experience*

11/2016-Present

Assistant Researcher, Informatics Research Institute (IRI), City of Scientific Research and Technological Applications (SRTA-City), Alexandria, Egypt.

- Organizing (as a team member) SRTA-City Training Programs (Summer & Winter Schools).
- Participating in various IRI research projects and other administrative work.
- Conducted individual research and participated in team research projects.
- Developing the academic knowledge as well as the other skills.
- Studied several advanced courses such as; Advanced Database and Data Mining, Quantum Computing (CGPA 3.925/4).

04/2013-11/2016

Research Assistant, Informatics Research Institute (IRI), City of Scientific Research and Technological Applications (SRTA-City), Alexandria, Egypt.

- Participated in preparing IRI's Cloud Computing and HPC data center.
- Assisted in installing different software (such as; ANSYS, COMSOL on Windows, Linux, HPC).
- Conducted a literature review on different types of solar technologies.
- Conducted individual research and participated in team research projects.
- Designed and implemented a new software to provide various weather information (C#, Windows).

Technical Experience

01/2013-04/2013

Systems and Programs Officer, IT Unit, Faculty of Pharmacy, Zagazig University, Egypt.

- Developed and implemented different programming requests, also providing technical support.
- Train faculty employees to use various applications such as the student/employee affairs system.

12/2008-12/2012

Software Developer, Egypt Saudi for Information Technology (ES4IT), Cairo, Egypt.

- Develop new change requests having adding new features for the application side/database side.
- Level three support for service connects and maintenance bugs.
- Mentoring and testing various ERP modules.

Publications

Generally, my contribution to papers is as:

- Developed the idea, research plan, and planned for it.
- Prepared and processed the required data to conduct the research. Conducted the literature review.
- Carried out practical work and recorded results.
- I wrote the paper and the manuscript was revised by the co-authors. Handled reviewers' comments.

Refereed Journal Articles

8. Mohamed A. Ali, Ashraf Elsayed, Islam Elkabani, M. Elsayed Youssef, Gasser E. Hassan, "Modelling Global Solar Radiation Using Ambient Temperature", Cleaner Energy Systems, Vol 7, April 2024, Article number 100101.
7. Mohamed A. Ali, Ashraf Elsayed, Islam Elkabani, M. Elsayed Youssef, Gasser E. Hassan, "Evaluation and Performance Comparison of Different Models for Global Solar Radiation Forecasting: A Case Study on Five Cities", Environment, Development and Sustainability, Dec 2023. Notice: **IF is 4.9 (2022) (Top 10% Scopus 2023)**.
6. Mohamed A. Ali, Ashraf Elsayed, Islam Elkabani, Mohammad Akrami, M. Elsayed Youssef, Gasser E. Hassan, "Ashraf Elsayed, Islam Elkabani, M. Elsayed Youssef, Gasser E. Hassan, "Optimizing Artificial Neural Networks for the Accurate Prediction of Global Solar Radiation: A Performance Comparison with Conventional Methods", Energies, Vol 16, No 17 (2023), Pages: 6165. **IF is 3.2 (2022) (Top 17% Scopus 2023)**.
5. Gasser E. Hassan, Mohamed A. Ali, "Performance Evaluation of Artificial Neural Networks in Estimating Global Solar Radiation, Case Study: New Borg El- Arab City, Egypt", International Journal Of Environmental Science & Sustainable Development, Vol 1, No 2 (2017), Pages: 1-8.
4. Gasser E. Hassan, M. Elsayed Youssef, Mohamed A. Ali, Zahraa E. Mohamed, "Evaluation of Different Sunshine-Based Models for Predicting Global Solar Radiation – Case Study: New Borg El-Arab City, Egypt", Thermal Science, (2017), Pages: 1-12.
3. Gasser E. Hassan, M. Elsayed Youssef, Mohamed A. Ali, Zahraa E. Mohamed, Ali I. Shehata, "Performance Assessment of Different Day-of-the-Year-based Models for Estimating Global Solar Radiation - Case Study: Egypt", Journal of Atmospheric and Solar-Terrestrial Physics, 149 (2016), Pages: 69-80.
2. Gasser E. Hassan, M. Elsayed Youssef, Zahraa E. Mohamed, Mohamed A. Ali, Ahmed A. Hanafy, "New Temperature-based Models for Predicting Global Solar Radiation", Applied Energy, 179 (2016), Pages:437-450. Notice: **IF is 11.2 (Top 2% ISI 2017)**.
1. M. Elsayed Youssef, Gasser E. Hassan, Zahraa E. Mohamed, Mohamed A. Ali, "Investigating the performance of different models in estimating global solar radiation", Advanced in Natural and Applied Science, 10 (2016), Pages: 379-389.

Refereed Conference Articles

3. Mohamed A. Ali, Gasser E. Hassan, Ashraf Elsayed, Islam Elkabani, M. Elsayed Youssef, "Global Solar Radiation Prediction Using Different Approaches – A Case Study on New Borg El-Arab City, Egypt", Third International Conference on New Trends in Sustainable Energy "From Waste to Energy"– ICNTSE-2021, Alexandria, Egypt, (ISSN: 2357-0865 (Online)), Pages: 130-135.
2. Gasser E. Hassan, Mohamed A. Ali, M. Elsayed Youssef, "Solar Energy Availability in Suez Canal's Zone - Case study: Port Said and Suez cities, Egypt", The International Maritime Transport & Logistics Conference (MARLOG 6), Alexandria, Egypt, (2017), Pages: 1-12.
1. Mohamed A. Ali, Gasser E. Hassan, M. Elsayed Youssef, "Assessment the Performance of Artificial Neural Networks in Estimating Global Solar Radiation", International Conference On New Trends For Sustainable Energy – ICNTSE 2016, Alexandria, Egypt, (ISSN: 2357-0865, paper Code: 02A4), Pages: 148-150.

Under Review Articles

5. Mohamed A. Ali, Ashraf Elsayed, Islam Elkabani, M. Elsayed Youssef, Gasser E. Hassan, "Global Solar Radiation Estimation Using Artificial Neural Network and Empirical Techniques: Models Evaluation and Comparison".
4. Mohamed A. Ali, Ashraf Elsayed, Islam Elkabani, M. Elsayed Youssef, Gasser E. Hassan, "Artificial Intelligence-Based Improvement of Empirical Methods for Accurate Global Solar Radiation Forecast: Development and Comparative Analysis".

3. Mohamed A. Ali, Ashraf Elsayed, Islam Elkabani, M. Elsayed Youssef, Gasser E. Hassan, "Impact of Changing the Length of Validation Dataset on Global Solar Radiation Models' Prediction and Accuracy".
2. Mohamed A. Ali, Ashraf Elsayed, Islam Elkabani, M. Elsayed Youssef, Gasser E. Hassan, "Forecasting Global Solar Radiation in Egypt Using Meteorological-Based Method: Development and Comparative Analysis".
1. Mohamed A. Ali, Gasser E. Hassan, Ashraf Elsayed, Islam Elkabani, M. Elsayed Youssef, "Evaluation of Temperature-Based Machine Learning and Traditional Techniques for Monthly Global Solar Radiation Forecasting".

Thesis

Mohamed A. Ali, Gasser E. Hassan, "Artificial Intelligence Applications in Solar Radiation Modeling and Estimation", Ph.D.'s Thesis, Faculty of Science, Alexandria University, 2024.

Mohamed A. Ali, M. Elsayed Youssef, "Computer Science Applications in Renewable Energy", Master's Thesis, Faculty of Science, Zagazig University, Sept 2016.

Projects

Research Projects

- 2017-2018 **"Development of Ship Simulator with Six Degrees of Freedom".**
- Funded by: Academy of Scientific Research and Technology – ASRT.
 - Participation: Participant.
 - Responsibility: Assisting in the integration process between Mechanical and VR parts (among a team).
- 2016-2018 **"Monitoring Water Hyacinth using ASTER Image".**
- Funded by: Academy of Scientific Research and Technology – ASRT.
 - Budget: Participation: Participant.
 - Responsibility: Handled the integration process between MATLAB software and C#.Net, by allowing the developed codes in MATLAB to run under the C#.Net platform.
- 2014-2017 **"Solar-Greenhouse-Desalination System Self productive of Energy and Irrigating Water Demand".**
- Funded by: (STDF, 10495)/NCP Participation: Member.
 - Responsibility:
 - Analyzed and collected various meteorological data.
 - Developed and validated different solar radiation models.
 - Designed and developed a new software for providing various weather information.

Technical Projects

- 2015-2016 **"Weather Station Management".**
- Description: A desktop application that can be employed for analyzing weather data and supporting essential information for designing energy systems (C#, Developer Express).
 - Responsibility: Analyzed, designed, and developed the whole application.
- 02/2014 **"IRI Management System".**
- Description: A desktop application that handles IRI's staff information, such as personal data, education, training, experience, Cares, and publications (C#, SQL Server, Developer Express).
 - Responsibility: Analyzed, designed, and developed the whole application.
- 2008-2012 **"LAVA ERP System".**
- Description: Windows desktop application software that handles different business operations, such as Human Resources (HR), Fixed Assets (FA), Point of Sales (POS), Stock, General Ledger (GL) operation, etc. (VB.Net – SQL Server – Crystal Reports – Developer Express).
 - Responsibility:
 - Develop new change requests having adding new features for the application side/database side.
 - Level three support for service connects and maintenance bugs.
 - Mentoring and testing various modules of the system (HR, FA, GL, etc.).
- 2007-2008 **"Graduation Project; Webcams Security System".**
- Description: A system of connected digital cameras that is utilized to guard/secure any place by detecting motions that occur in that place. Moreover, it raises different alerts (sound or visual) automatically or manually if any motion is detected. (C#, Windows API, MATLAB, IC "imaging control tool").
 - Responsibility:

- Implemented (among a team) various programmable parts in the application.
- Tested the application and handled bugs and errors. Also, presented the project's progress to doctors.

Honors/Awards

09/2020-On Going	Egyptian Ministry of Higher Education and Scientific Research – Egyptian Government - Research Fellowship (Ph.D.), Faculty of Science, Alexandria University, Egypt.
10/2017	Distinctive Publishing Award , granted by Faculty of Science, Zagazig University, Egypt.
09/2016	Distinctive Publishing Award (Top 50 % ISI Journals, 2016), granted by the City of Scientific Research and Technological Applications, Egypt.
07/2016	Distinctive Publishing Award (Top 5 % ISI Journals, 2016) , granted by the City of Scientific Research and Technological Applications, Egypt.
02/2014-09/2016	Egyptian Ministry of Higher Education and Scientific Research – Egyptian Government - Research Fellowship (M.Sc.), Faculty of Science, Zagazig, University, Egypt.
07/2008	Academic Distinctive Award , granted by Faculty of Science, Zagazig University, Egypt.
09/2005-05/2008	Fellowship , granted by Faculty of Science, Zagazig University, Egypt.

Teaching Experience

09/2022-On Going	Assistant Lecturer , Borg Al Arab Technological University, Alexandria, Egypt. <ul style="list-style-type: none">Assist and deliver different IT courses and labs.
08/2022-On Going	Instructor , SRTA-City Training Schools (Summer and Winter). <ul style="list-style-type: none">Developed and delivered a course that focuses on how to build a career in the IT field correctly.
08-09/2013	Trainer , Informatics Research Institute, City of Scientific Research and Technological Applications, Egypt. <ul style="list-style-type: none">Developed and delivered short courses in C#.NET, ADO.Net, and SQL Server.

Activities

2018-Present	"SRTA-City Training Programs" , SRTA-City Campus, Alexandria, Egypt. <ul style="list-style-type: none">Organizer (as a team member) SRTA-City's training programs (Summer and winter Schools) within both Physical Attendance and Online schools.Handling all the ONLINE Schools (Creation and Preparation for all classes).Participation in preparation and management for Physical Attendance School too.
01/2022-Present	"SRTA-City Central Labs Workshops Series (Theories and Applications)" , SRTA-City Campus, Alexandria, Egypt. <ul style="list-style-type: none">Organizer (as a team member).Handling the ONLINE work such as handling the registration process.Participation in preparation and management process.Workshops' Example:<ul style="list-style-type: none">Name: "Introduction to Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS) and Its Application in Natural Sciences", Date: 01/2022.Name: "Introduction to Gas Chromatography (GC) & Ion Chromatography (IC)", Date: 03/2022.
08/2022-Present	"1st International Conference of Genetic Engineering and Biotechnology Research Institute" , SRTA-City Campus, Alexandria, Egypt. <ul style="list-style-type: none">Organizer (as a team member).Participation in preparation and management process.
01-02/03/2022	"ICNTSE-2021" Conference , Pharos University, Alexandria, Egypt. <ul style="list-style-type: none">Attended and presented a paper, " Global Solar Radiation Prediction Using Different Approaches – A Case Study on New Borg El-Arab City, Egypt ".
19-21/03/2017	"MARLOG6" Conference , Hilton, Green Plaza Hotel, Alexandria, Egypt. <ul style="list-style-type: none">Attended and participated in a research paper "Solar Energy Availability in Suez Canal's Zone - Case study: Port Said and Suez Cities, Egypt".
12/03/2017	"We Can Event" Zewil Hall, Faculty of Science, Alexandria University, Egypt. <ul style="list-style-type: none">Attended Event sessions (DAAD scholarships, Writing CV, Studying Abroad).

- 29/01-09/02/2017 **“Winter School”**, Informatics Research Institute, SRTA-City, Alexandria, Egypt.
 ▪ Participated at “IRI Winter Schools” in preparation and organization.
- 13/10/2016 **“Author Workshop”**, Alexandria Bibliotheca, Alexandria, Egypt.
 ▪ Attended the workshop provided by "Elsevier Publishing Campus".
- 01-03/10/2016 **“ICNTSE” Conference**, Pharos University, Alexandria, Egypt.
 ▪ Attended and presented a paper, "Assessment the Performance of Artificial Neural Networks in Estimating Global Solar Radiation".
- 12/10/2015 **“IRI Cloud Workshop”**, Four Season Hotel, San Stefano, Alexandria, Egypt.
 ▪ Assessed in organizing and preparing for the workshop (among a team).
- 13-18/04/2015 **Attended “CHAN-REDS” School on Cloud Computing, INFN Catania- Italy.**
- 01/12/2014 **Attended “Data Analysis and Modeling using CoStat Software” Workshop, SRTA-City, Egypt.**

Leadership/ Volunteering Training

- Organized blood donation campaigns (among a team).
 - Delivered free-charge courses and materials in IT.
 - Writer in some scientific groups such as "Scientific Journals Group".
- 09/2019 **IELTS**, IDP, Alexandria, Egypt.
- 08/2018 **IELTS**, BRITISH COUNCIL, Alexandria, Egypt.
- 27/04-12/05/2016 **TOFEL**, Zagazig University Community Service / (ESP), Zagazig University, Egypt.
- 13-18/04/2015 **Chain-Reds School on Cloud Computing**, INFN Institute, Catania- Italy.
- 23/07-03/09/2007 **C# 2005, ADO.NET, SQL Server 2000**, ICT Company, Zagazig University, Egypt.
- 05-18/09/2007 **Soft Skills** (Presentation Skills–Time & Project Management), ICT Company, Zagazig University, Egypt.
- 3rd-4th Year **SQL Oracle 10j**, (Summer Training), Faculty of Science, Zagazig University, Egypt.

Technical Skills

- **Programming Languages:** C#.NET, VB.NET, C/C++, Python, Java, Pascal, Q Basic, and Matlab.
- **Database Management Tools:** SQL Server, MySQL, ADO.Net, LINQ, Microsoft Access.
- **Web Development:** ASP.NET, HTML, CSS. **Environments:** Microsoft Windows, Linux.

Memberships

- Member of the Egyptian Syndicate of Science Processions.

Language

- **Arabic** (Native) & **English** (Very Good; **IELTS** - Speaking: **6.5**, Listing: **6**, Writing: **6**, Reading: **5.5**).

Skills

- Excellent research skills.
- Ability to work in a group or individually.
- Good communication skills.
- Self-motivation and the ability to learn new sciences.

References

- Gasser Hassan**, Associate Professor, Computer-Based Applications Dept., Informatics Research Institute (IRI), City of Scientific Research and Technological Applications (SRTA-City), Alexandria, Egypt.
 ▪ *Relationship:* IRI's Ph.D. Supervisor *Mobile:* +20 1003060465 *Mail:* gasser_hassan@yahoo.com
- Mohamed ElSayed Aly**, Prof. and Former Dean of Informatics Research Institute (IRI), Computer-Based Applications Dept., City of Scientific Research and Technological Applications (SRTA-City), Egypt.
 ▪ *Relationship:* IRI's M.Sc. Supervisor *Mobile:* +20 1211213444 *Mail:* elsayed168@gmail.com
- Mona Ossman**, Professor and Former Head of Computer-Based Applications Dept., Informatics Research Institute (IRI), City of Scientific Research and Technological Applications (SRTA-City), Egypt.
 ▪ *Relationship:* Previous Head of Department *Mobile:* +20 1001392281 *Mail:* mhr1410@hotmail.com
- Ashraf Said Ahmed Elsayed**, Associate Professor of Computer Science, Mathematics and Computer Science Dept., Faculty of Science, Alexandria University, Egypt.
 ▪ *Relationship:* Lecturer & Supervisor *Mobile:* +20 1113379470 *Mail:* Ashrafaf73@yahoo.com