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Mohamed Loey Ramadan Ibrahim

Curriculum Vitae

Associate Professor

Computer Science Department
Faculty of Computers and Artificial Intelligence
Benha University, Egypt

ACADEMIC CERTIFICATES

PhD in Computer Science **Sept. 2011 – May 2017**

Faculty of Computers and Artificial Intelligence

Benha University, Qalyubia, Egypt

- Thesis: A Pen Based Intelligent System for Educating Arabic Handwriting
- Developed and evaluated an intelligent tutor system to recognize and diagnose Arabic children handwritten characters and digits mistakes via deep learning architectures

Master in Information Technology **Sept. 2007 – Aug. 2010**

Faculty of Computers and Artificial Intelligence

Cairo University, Cairo, Egypt

- Thesis: Improving the Performance of Anti-GPS Signal
- Designed and simulated GPS jamming signal using new technology of jamming.

B.Sc. in Information Technology **Sept. 2002 – Jul. 2006**

Faculty of Computers and Artificial Intelligence

Cairo University, Cairo, Egypt

- Very good with honors

ACADEMIC POSITIONS

Industry and Energy Technology College, New Cairo Technological University, Cairo, Egypt

- **Head** and Coordinator of Information Technology Program **Nov. 2021 – Feb. 2022**
- **Head** of Technology of Production, Processing and Transport of Petroleum Program Control

Faculty of Computers and Artificial Intelligence, Benha University, Egypt

- **Member** of the Computer Science Department Council **Oct. 2021 – Feb. 2022**

UNIVERSITY MISSIONS

Buraydah Collages , Buraydah, Al-Qassim, Saudi Arabia

(Cybersecurity program)

Full Time

Feb. 2022 – Jun. 2024

- Ethical Hacking
- Project Management for IT
- Database management system
- Network Security
- Security Architecture and System Administration
- Computer Programming 1
- Information Risk Management
- Health Information Technology
- Database security
- Internet Security and Deliberations

- Part Time** **Sep. 2021 – Jan. 2022**
- Network Security
 - Security Architecture and System Administration
 - Internet Security and Deliberations
 - Special Topics in Computer Engineering 1
 - Software Project Management
 - IT Project Management
- Industry and Energy Technology College, New Cairo Technological University, Cairo, Egypt**
- Full Time (Ministry of Higher Education)** **Oct. 2021 – Feb. 2022**
- Computer Graphics
 - Advanced Java Programming
 - Computer Skills
- High Institute for Computers and Management Information Systems, Cairo, Egypt**
- Part Time** **March 2021 – July 2021**
- Fundamental of Structural Programming
 - Computer Applications for Reports Preparations
- Higher Technological Institute, 10th of Ramadan City, Egypt**
- Part Time** **March 2021 – July 2021**
- Distributed Systems
 - Neural Network

ACADEMIC EXPERIENCE

- Associate Professor** **Jun. 2022 – Present**
Computer Science, Faculty of Computers and Artificial Intelligence, Benha University, Qalyubia, Egypt
- Assistant Professor** **May. 2017 – Jun. 2022**
Computer Science, Faculty of Computers and Artificial Intelligence, Benha University, Qalyubia, Egypt
- Assistant Lecturer** **Jan. 2011 – May. 2017**
Computer Science, Faculty of Computers and Artificial Intelligence, Benha University, Qalyubia, Egypt
- Assistant Lecturer – Demonstrator** **Sept. 2008 – Jan. 2011**
Computer Science, Sinai University, Sinai, Egypt

TEACHING COURSES

- Ph.D. degree
 - Advanced Multi-Agents Systems
- Master's degree
 - Advanced Artificial Intelligence
 - Advanced Topics in Computer Science - 2 (Deep Learning)
- Master's degree (Faculty of Science -Benha University)
 - Computer Security and Network
 - Advanced database
- Bachelor's degree
 - Computer Graphics
 - Computer Security and Network
 - Analysis and Design of Algorithms
 - Artificial Intelligence
 - Project Management Professional
 - Programming Language using C++
 - Modeling and Simulation
 - Ethical Hacking
 - Data Structure
 - Algorithms
 - Web Programming
 - Report Writing
 - Computer Vision
 - Logic Design
 - Multimedia
 - Wireless Network

EXPERIENCE

Technical Skills

- PhD of Computer Science in machine learning and deep learning using python
- 10+ years experience in academic teaching
- 7+ years experience in academic control
- Gained expertise in machine and deep learning tools such as keras and tensorflow using python

Teamwork Skills

- Strong collaboration skills by working with teams of more than 5 members for 5 years
- Member of the Library Committee at faculty of computer and artificial intelligence – Benha university

Leadership Skills

- Head and Coordinator of Information Technology Program, New Cairo Technological University, New Cairo, Egypt (2021-2022)
- Head of Technology of Production, Processing and Transport of Petroleum Program control, New Cairo Technological University, New Cairo, Egypt (2021-2022)
- Head of the third year control at faculty of computers and artificial intelligence – Benha university (2017-2018)
- Assistant department head of the computer science at faculty of computers and artificial intelligence – Benha university (2017-2018)
- Chairman of the committee of library to purchase books from the Book Fairs (2017-2018)

Academic Skills

- Published over 25 publications with **over 3430** citations.
- Reviewer in more than 20 international journal.
- Supervised many postgraduate researchers with the following titles:
 - An Intelligent System for Plant Diseases Detection
 - Design of an Intelligent System for Improving Classification of Cancer Diseases
 - An Automated Detection System for Diagnosing of Leukemia Cancer in Blood Cells
 - Improve Face Synthesis based on Deep Learning
 - Enhancement Text to Image Synthesis Using Deep Learning
- Instructed lectures of more than 700 students to understand programming and algorithms concept through real world examples
- Teaching PhD and master students
- Member on judgement commission for Benha university student competition
- Teacher and interviewer at next technology leaders (NTL) responsible for deep learning nanodegree, python for everybody specialization, into to programming, front-end and full stack web developer nanodegree
 - Website: <http://techleaders.eg>

ACADEMIC PUBLISHING ([scholar.google.com/citations?hl=en&user= kRSr78AAAAJ](https://scholar.google.com/citations?hl=en&user=kRSr78AAAAJ))

- **Listed in World's Top 2% Scientists in 2022,2023**

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- ❖ Ioannidis, John P.A. (2023), "October 2023 data-update for "Updated science-wide author databases of standardized citation indicators"", Elsevier Data Repository, V6, doi: 10.17632/btchxktzyw.6
 - ❖ Ioannidis, John P.A. (2022), "September 2022 data-update for "Updated science-wide author databases of standardized citation indicators"", Mendeley Data, V4, doi: 10.17632/btchxktzyw.4
 - G. Manogaran, N. Khalifa, **M. Loey**, M. Taha, "Cyber-physical Systems for Industrial Transformation: Fundamentals, Standards, and Protocols", CRC Press, 2023.
 - **M. Loey**, S. El-Sappagh, S. Mirjalili, "Bayesian-based optimized deep learning model to detect COVID-19 patients using chest X-ray image data", Computers in biology and medicine, 2022. **(Q1, IF= 4.589)**
 - **M. Loey**, S. Mirjalili, "COVID-19 cough sound symptoms classification from scalogram image representation using deep learning models", Computers in biology and medicine, 2021. **(Q1, IF= 4.589)**
 - N.E.M. Khalifa, **M. Loey**, S. Mirjalili, "A comprehensive survey of recent trends in deep learning for digital images augmentation", Artificial Intelligence Review, 2021. **(Q1, IF= 8.139)**
 - M. Afify, **M. Loey**, A. Elsayy, "A Robust Intelligent System for Detecting Tomato Crop Diseases Using Deep Learning", International Journal of Software Science and Computational Intelligence, 2022. **(Q3, IF= 0.57)**
 - N.E.M. Khalifa, G. Manogaran, M.H.N. Taha, **M. Loey**, "A deep learning semantic segmentation architecture for COVID-19 lesions discovery in limited chest CT datasets", Expert Systems, 2021. **(Q2, IF=1.546)**
 - S. Maher, **M. Loey**, "Photo Realistic Generation from Arabic Text Description Based on Generative Adversarial Networks", ACM Transactions on Asian and Low-Resource Language Information, 2021. **(Q4, IF= 1.471)**
 - R. Ghanem, **M. Loey**, "Face Completion Using Generative Adversarial Network with Pretrained Face Landmark Generator", International Journal of Intelligent Engineering & Systems, vol.14, 2, 2021. **(Q3, CiteScore= 1.9, SJR= 0.19)**
 - N.E.M. Khalifa, F. Smarandache, G. Manogaran, **M. Loey**, "A Study of the Neutrosophic Set Significance on Deep Transfer Learning Models: an Experimental Case on a Limited COVID-19 Chest X-ray Dataset", Cognitive Computation, 2021. **(Q1, IF=4.307)**
 - **M. Loey**, G. Manogaran, M.H.N. Taha, N.E.M. Khalifa, "A hybrid deep transfer learning model with machine learning methods for face mask detection in the era of the COVID-19 pandemic", Measurement, vol.167, 1, 2021. **(Q1, IF=3.364)**
 - **M. Loey**, G. Manogaran, M.H.N. Taha, N.E.M. Khalifa, "Fighting against COVID-19: A novel deep learning model based on YOLO-v2 with ResNet-50 for medical face mask detection", Sustainable Cities and Society, 2020. **(Q1, IF=5.268)**
 - **M. Loey**, G. Manogaran, N.E.M. Khalifa, "A deep transfer learning model with classical data augmentation and CGAN to detect COVID-19 from chest CT radiography digital images", Neural Computing and Applications, 2020. **(Q1, IF=4.774)**
 - N.E.M. Khalifa, **M. Loey**, A. Mawgoud, M.H.N. Taha, "EMPIRICAL STUDY AND ENHANCEMENT ON DEEP TRANSFER LEARNING FOR SKIN

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- LESIONS DETECTION”, Journal of Theoretical and Applied Information Technology, vol.98, 9, 2020. **(Q3, CiteScore= 1.2, SJR= 0.23)**
- **M. Loey**, M. Naman, H. Zayed, “A Survey on Blood Image Diseases Detection Using Deep Learning”, International Journal of Service Science, Management, Engineering, and Technology (IJSSMET), vol.11, 3, 2020. **(Q2, CiteScore= 1.8, SJR= 0.25)**
 - **M. Loey**, F. Smarandache, N.E.M. Khalifa, “Within the Lack of Chest COVID-19 X-ray Dataset: A Novel Detection Model Based on GAN and Deep Transfer Learning”, Symmetry, vol.12, 4, 2020. **(Q2, IF=2.645)**
 - M. Loey, M. Naman, H. Zayed, “Deep Transfer Learning in Diagnosing Leukemia in Blood Cells”, Computers, vol.9, 2, 2020. **(Q2, CiteScore= 2.5, SJR= 0.36)**
 - **M. Loey**, M.W Jasim, H.M EL-Bakry, M.H.N. Taha, N.E.M. Khalifa, “Breast and Colon Cancer Classification from Gene Expression Profiles Using Data Mining Techniques”, Symmetry, vol.12, 3, 2020. **(Q2, IF=2.645)**
 - **M. Loey**, A. ElSawy, M. Afify, “Deep Learning in Plant Diseases Detection for Agricultural Crops: A Survey”, International Journal of Service Science, Management, Engineering, and Technology (IJSSMET), IGI, vol.11, 2, 2020. **(Q2, CiteScore= 1.8, SJR= 0.25)**
 - N.E.M. Khalifa, **M. Loey**, M.H.N. Taha, “INSECT PESTS RECOGNITION BASED ON DEEP TRANSFER LEARNING MODELS”, Journal of Theoretical and Applied Information Technology, vol.98, 1, 2020. **(Q3, CiteScore= 1.2, SJR= 0.23)**
 - N.E.M. Khalifa, **M. Loey**, M.H.N. Taha, “Deep Transfer Learning Models for Medical Diabetic Retinopathy Detection”, Acta Informatica Medica, vol.27, pp. 327-332, 2020. **(Q3, CiteScore= 0.85, SJR= 0.25)**
 - A.A. Mawgoud, N.E.M. Khalifa, M.H.N. Taha, **M. Loey**, “Cyber Security Risks in MENA Region: Threats, Challenges and Countermeasures”, International Conference on Advanced Intelligent Systems and Informatics, pp. 912-921, 2019.
 - **M. Loey**, H.M EL-Bakry, M.W Jasim, “Machine Learning in Gene Expression Profile for Central Nervous System Tumor Classification”, Journal of Convergence Information Technology, vol.14, pp. 49-60, 2019.
 - M.W Jasim, H.M EL-Bakry, **M. Loey**, “Survey on Gene Selection Using Meta Heuristic Algorithms for Classifying Cancer Disease”, International Journal of Advanced Research in Computer Science & Technology, vol.6, pp. 19-27, 2018.
 - A. El-Sawy, **M. Loey**, and H. EL-Bakry, “Arabic handwritten characters recognition using convolutional neural network,” WSEAS Transactions on Computer Research, vol. 5, pp. 11–19, 2017.
 - A. El-Sawy, H. El-Bakry, and **M. Loey**, “An intelligent agent tutor system for detecting Arabic children handwriting difficulty based on immediate feedback,” WSEAS TRANSACTIONS on SYSTEMS, vol. 15, pp. 63–72, 2016.
 - A. El-Sawy, H. EL-Bakry, and **M. Loey**, “CNN for handwritten arabic digits recognition based on lenet-5,” in Proceedings of the International Conference on Advanced Intelligent Systems and Informatics 2016, vol. 533, pp. 566–575, Springer International Publishing, 2016.
 - A. El-Sawy, **M. Loey**, and H. EL-Bakry, “Arab kids tutor (akt) system for handwriting stroke errors detection,” INTERNATIONAL JOURNAL OF

TECHNOLOGY ENHANCEMENTS AND EMERGING ENGINEERING RESEARCH, vol. 4, pp. 42–49, 2016.

- H. N. Elmahdy and **M. L. Ramadan**, “Improving the performance of antigps signal,” in Proceedings of the 3rd WSEAS International Symposium on Wavelets Theory and Applications in Applied Mathematics, Signal Processing & Modern Science, WAV’09, (Stevens Point, Wisconsin, USA), pp. 17–22, World Scientific and Engineering Academy and Society (WSEAS), 2009.

CERTIFICATIONS

Deep Learning:

- Deep Learning for Business by Yonsei University on Coursera. Certification earned on September 7, 2017
- Neural Networks and Deep Learning by deeplearning.ai on Coursera. Certification earned on September 8, 2017

Machine Learning:

- Machine Learning, a 4-course specialization by University of Washington on Coursera. Specialization Certification earned on February 13, 2017
- Machine Learning Foundations: A Case Study Approach by University of Washington on Coursera. Certification earned on November 11, 2016
- Machine Learning: Clustering & Retrieval by University of Washington on Coursera. Certification earned on February 13, 2017
- Machine Learning: Classification by University of Washington on Coursera. Certification earned on January 2, 2017
- Machine Learning: Regression by University of Washington on Coursera. Certification earned on November 28, 2016

Python:

- An Introduction to Interactive Programming in Python (Part 1) by Rice University on Coursera. Certification earned on February 15, 2017
- Programming for Everybody (Getting Started with Python) by University of Michigan on Coursera. Certification earned on November 11, 2016

Data Science:

- The Data Scientists Toolbox by Johns Hopkins University on Coursera. Certification earned on March 4, 2017
- Introduction to Data Science in Python by University of Michigan on Coursera. Certification earned on February 4, 2017
- Data Management and Visualization by Wesleyan University on Coursera. Certification earned on May 10, 2017
- Predictive Analytics Modeler (SPSS Modeler) by IBM. Certification earned on 2017

MATLAB:

- Introduction to Programming with MATLAB by Vanderbilt University on Coursera. Certification earned on November 7, 2016

Quality of Education:

- Strategic Planning
- University Lecturer Preparation
- External Review
- Self-Evaluation
- Programs and Curriculum maps Characterization

Algorithms:

- Algorithmic Toolbox by University of California on Coursera. Certification earned on October 28, 2017

AWARDS

- Won Scientific Excellence Day 2021 in the Field of Scientific Research and International Publishing at Benha University
- Won Scientific Excellence Day 2020 in the Field of Scientific Research and International Publishing at Benha University
- Won the 2nd place in Olympics of Computing and Information at Kafrelsheikh University (2016-2017)
- Won best Academic Website for Academic - Benha University (2014-2015)
- Won best Assitant Lecturer for Academic from Faculty of Computer and Informatics, Benha University (2015-2016)

GRANTS

- Granted from **NVIDIA GPU (Titan X Pascal)** to support my research on Deep Learning at Benha University - 2017

COMPUTER SKILLS

Deep Learning:

- TFLearn & Keras based on Tensorflow
- Keras based on Theano
- Deep Learning using MATLAB

Machine Learning:

- Scikit-Learn
- Statistics and Machine Learning Toolbox using MATLAB

Data Science:

- Pandas, SciPy, Matplotlib, Seaborn, NumPy and Scrapy

Data Mining:

- Weka
- Orange
- SPSS Modeler

Computer Vision and Image Processing:

- OpenCV
- Computer Vision Toolbox using MATLAB
- Image Processing Toolbox using MATLAB

Web Development:

- HTML, CSS, JQuery, Bootstrap
- PHP/MySQL

Programming Language:

- Python
- C++
- Java

Mobile Development:

- Android using Java

Report Writing:

- Latex

SPEECHES

- Presented lecture about "Information Security" in Qalyubia Security Directorate
- Introduced lecture about "How to protect your privacy on social media" in Faculty of Nursing –Benha University
- Presented lecture about "A Pen Based Intelligent System for Educating Arabic Handwriting" in Faculty of Education - Benha Univeristy
- Introduced lecture about "How to protect your privacy on social media" in Faculty of Computers and Artificial Intelligence -Benha Univeristy

HOBBIES

- Travelling
- Swimming
- Reading