PERSONAL INFORMATION

Hager Saleh Mohammed Ahmed

Hurghada, Egypt

00201119411675

hager.saleh.fci@gmail.com

https://www.linkedin.com/in/hager-saleh-4a373175/

Researcher, Programmer

Sex Enter sex | Date of birth 21/08/1987 | Nationality Egyptian

Research gate: https://www.researchgate.net/profile/Hager_Saleh3

EDUCATION

28/3/2018-4/2021
Ph.D. in Information System
Faculty of Computer and Information University, Minia University, Minia (Egypt)
Ph.D's thesis title: Efficient Predictive Analytics using Big Data Platforms

27/7/2015–27/02/2017
M. Sc. in Computer Science
Faculty of Science, Aswan University, Aswan (Egypt)
Master's thesis title: Optimized SQL Query Translator on Big Data

27/10/2013–27/2/2015
Pre-Master in Computer Science
Faculty of Science, Aswan University, Aswan (Egypt)

2006–2009
Bachelor of Information System
Faculty of Computer and Information University Assuit, Assuit (Egypt), Very Good

Experiences

1/7/2021-Presented
Lecture
Faculty of Computers and Artificial Intelligence, South Valley University, Hurghada,Egypt

1/3/2021–30/06/2021
Assistant Lecturer
Faculty of Computers and Artificial Intelligence, South Valley University, Hurghada, Egypt

27/10/2013–27/2/2015
Computer teacher
Mansour Mashali School, Edfu Educational Administration, Aswan

2009-2011
E_Content Developer at E_learning Center Helwan University

PERSONAL SKILLS

COMMUNICATION SKILLS

- Ability to know new technology,

- Ability to work in a dynamic environment and productive teams.
- Good Research Abilities.
- Helpful and like to share the effort with a creative organization.
- Good communication skills with people and the ability to work under pressure.
- Strong time management skills with the ability to prioritize and contribute to multiple assignments simultaneously.
- Working in a Team.
- Motivated.
- Flexible

Papers Publications

1. **Ahmed, Hager,** Eman MG Younis, Abdeltawab Hendawi, and Abdelmgeid A. Ali. **"Heart disease identification from patients' social posts, machine learning solution on Spark."** Future Generation Computer Systems 111 (2020): 714-722**. [IF=7.2].**

2. Shaker El-Sappagh, **Hager Saleh**, Radhya Sahal, Tamer Abuhmed, S. M. Riazul Islam, Farman Ali, Alberto Bugarin, "**Alzheimer's disease progression detection model based on an early fusion of multimodal time-series data**," Future Generation Computer Systems in Elsevier (2020. **[IF=7.2].**

3. **Hager Saleh**, Abdullah Alharbi, and Saeed Hamood Alsamhi. "OPCNN-FAKE: Optimized Convolutional Neural Network for Fake News Detection." *IEEE Access* (2021). [IF=3.367]

4. Shaker El-Sappagh, Tamer Abuhmed, Bader Alouffi, Radhya Sahal, Naglaa Abdelhade, **Hager Saleh**, "**The role of Alzheimer's drugs to enhance the disease progression using machine learning**," Computational Intelligence and Neurosciences, 2021. **[IF=3.633]**.

5. S. H. Alsamhi1, Faris A Almalki, Hatem Al-Dois,Soufiene Ben Othman, Jahan Hassan,Ammar Hawbani, Radyah Sahal,Brian Lee, **Hager Saleh**, " **Machine Learning for Smart Environments in B5G Networks: Connectivity and QoS**," Computational Intelligence and Neurosciences, 2021. **[IF=3.633]**

6. **Hager Saleh,** Eman MG Younis, Radhya Sahal, and Abdelmgeid A. Ali. **Predicting Systolic Blood Pressure in Real-time using Streaming Data and Deep Learning**." Journal Mobile Networks and Applications in Springer (2020). **[IF=2.881].**

7. Zhang, Xiongwei, **Hager Saleh**, Eman MG Younis, Radhya Sahal, and Abdelmgeid A. Ali. "**Predicting Coronavirus Pandemic in Real-Time Using Machine Learning and Big Data Streaming System**." *Complexity* 2020 (2020). **[IF=2.4].**

8. Omran, Nahla F., Sara F. Abd-el Ghany, **Hager Saleh**, and Ayman Nabil. "**Breast Cancer Identification from Patients' Tweet Streaming Using Machine Learning Solution on Spark**." *Complexity* 2021 (2021). **[IF=2.4].**

9. Bader Alouffi1, Abdullah Alharbi1, Radhya Sahal, **Hager Saleh, An Optimized Hybrid Deep learning Model to Detect COVID-19 Misleading Information," Computational Intelligence and Neurosciences**, 2021. **[IF=3.633]**

10. **Hager Ahmed,** Younis EM, Ali AA. **Predicting Diabetes using Distributed Machine Learning based on Apache Spark**. In 2020 International Conference on Innovative Trends in Communication and Computer Engineering (ITCE) 2020 Feb 8 (pp. 44-49). IEEE.

11. **Hager Ahmed**, Sara F. Abd-el ghany, Eman M.G.Younis, Nahla F.Omran, Abdelmgeid A.Ali. " **Stroke Prediction using Distributed Machine Learning Based on Apache Spark**." *International Journal of Advanced Science and Technology.* 15 (2019): 28.

12. Nahla F.Omran1, Sara F Abd-el ghany1, Hager Saleh, Abdelmgeid A. Ali, Abdu Gumaei and Mabrook Al-Rakhami " **Applying deep learning methods on time-series for forecasting COVID-19 in Egypt, Kuwait, and Saudi Arabia**." *Complexity* 2021 (2021). **[IF=2.4].**

13. Wazery, Yaser Maher, **Hager Saleh**, and Essam Halim Houssein. "**Twitter Sentiment Analysis using Deep Neural Network**." In 2018 14th International Computer Engineering Conference (ICENCO), pp. 177-182. IEEE, 2018.

14. Gouda, Yasien Ghallab, **Hager Saleh**, and Mohamed Helmy Khafagy. "Advanced SQL Query To Flink Translator." Journal of Computer Science IJCSIS 8(10): 11-15.

15. **Hager Saleh**, Yasien Ghallab Gouda, and Mohamed Helmy Khafagy. "An optimized SQL query translator in flink." *International Journal of Computer Science and Information Security* 14.5 (2016): 54.

Submitted Papers

1. Shaker El-Sappagh, **Hager Saleh** "**Multistage deep learning model for Alzheimer's disease diagnosis and mild cognitive impairment time of conversion prediction"** in Journal of Neural Computing and Applications in Springer [**IF=5**]

ROJECTS AND PAPERS DESCRIPTION

2018- 2019	Paper Title	Heart Disease Identification from Patients' Social Posts, Machine Learning Solution on Spark.
	Tools	Apache Spark and Apache Kafka
	Libraries	Spark Streaming, Spark SQl, and MLlib's Spark and Twitter Streaming API

My Roles
- Developing a real-time system that can determine and extract knowledge related to heart diseases from user's streaming tweets to predict whether the person is prone to have heart disease or not.
- Applying two feature selection algorithms to select the most important features from the data set.
- Comparing different machine learning classification techniques such as DT, SVM, RF, and LR in terms of their accuracy for the full features and the selected set of features.

1/١١/٢٠١٩- ٣٠/٣/2020

Paper Name: Alzheimer's disease progression detection model based on an early fusion of multimodal time-series data

Tools: Anaconda, Python 3.7, and Jupiter notebook

What done?
- Drug terms are collected and cleaned, encoded using the therapeutic
- chemical classification (ATC) ontology, and then semantically aggregated to the appropriate level of granularity using ATC to ensure a less sparse dataset.
- Proposed a novel methodology to encode the medication time-series data based on the standard using the therapeutic chemical classification (ATC) ontology.
- Implemented, evaluated, and optimized a set of five models that are based on popular machine learning algorithms: SVM, RF, LR, DT, and KNN.
- Optimized machine learning algorithms using cross-validation and grid search.

1٥/٤2020- 30/5/2020

Paper Name: Multistage deep learning model for Alzheimer's disease diagnosis and mild cognitive impairment time of conversion prediction

Tools: Anaconda, Python 3.7 and Jupiter notebook

Libraries: Scikit-Learn 0.20.0 library, Keras-tuner 1.0.1 library, and Keras 2.3.1 library

	What done?	- Applied feature selection methods such as filter methods and wrapper methods. - Propose a multistage LSTM-based deep learning model for predicting the patient's class in a first stage and predicting the exact conversion time for pMCI patients in a second stage - For the classification task, we optimize many popular ML models, including the regular classifiers of DT, RF, SVM, LR, and FFNN, and deep learning models, including the LSTM classifier. - The regular ML models have been optimized using the grid search, and LSTM model architecture and hyperparameters have been optimized using the Keras-Tuner. - For the regression task, we optimize five popular ML regressors, including DT, linear ridge, LASSO, RF, and SVM. Also, we build and optimize FFNN and LSTM models. The hyperparameters of regular ML regressors are tuned using the grid search technique. The FFNN and LSTM architectures and hyperparameters have been optimized Keras-tuner.
1/٤/2020- 30/5/2020	Paper name	Predicting Systolic Blood Pressure in Real-time using Streaming Data and Deep Learning
	Tools	Anaconda, Python 3.7 and Jupiter notebook Apache Spark and Apache Kafka
	Libraries	Scikit-Learn, Keras-tuner library, and Keras, Spark Streaming
	What done?	- Developing a real-time system that can help avoid the risk of high SBP in the future. - Collected and Pre-processed Systolic Blood Pressure time series from Medical Information Mart for Intensive Care (MIMC-II) - Comparing between four-time series forecasting techniques (deep learning), namely Recurrent Neural Network, Long short-term memory, Bidirectional long short term memory, and Gated recurrent units, are used to develop the offline model.
1/10/2020- 30/5/2020	Task Name	Fake News Detection Using N-Gram Analysis and Machine Learning Techniques
	Tools	Anaconda, Python 3.7, and Jupiter notebook
	Libraries	Python Natural Language Toolkit (NLTK), cross-validation and grid search
	What done?	- Applied different data pre-processing steps including, Stop Word Removal, Stemming, remove punctuation and non-letter characters - Applied different features extraction methods, including Term Frequency (TF) and Term Frequency-Inverted Document Frequency (TF-IDF). - Investigated different machine learning algorithms, namely, Random forest classifier, Support Vector Machines, K-Nearest Neighbour, and Decision Trees.

ADDITIONAL INFORMATION

Skills	- Strong background in machine learning and deep learning networks - Big Data Technology (Hadoop, MapReduce, Flink, Hive, Spark, and Storm, Kafka). - Programming on Linux Operating System. - Programming languages (Visual Basic.net, JAVA, Python, C#, C++) - Web programming (PHP, ASP, JavaScript, HTML, CSS and XML). - Database Management System (MYSQL, SQL Server). - Management Content Management (Joomla, Wordpress, Opencart, Forums, and archiving, Moodle). - E_learning (Courselab, Reload Editor, Dream waver, Html, Javascript, and CSS, Moodle). - System Analysis (Analyse and discuss requirements UML) - Latex document preparation system. - Another tool (TensorFlow, Weka, Anaconda, Spark Mllib, Spark Streaming) - Ability to work individually, as well as partner with small teams of Data Analysts / Data Scientists during all stages of projects, including planning and execution

Courses and Certification	**3-2018**: Studying online course on Udemy about Taming Big Data with Apache Spark and Python - Hands. **1-2018:** Studying online course about Machine Learning A-Z™: Hands-On Python & R In Data Science. **2017: Certificate of FIWARE for Innovation IoT-based Solutions for Smart Campus,** Cairo University, Cairo, Egypt**.** **21-23 2017. Cairo University** **12-2017:** Certified of IELST, British Council, Cairo, Egypt. **2014: Course online of Big Data includes Hadoop, Hive, Pig, Spark.** **2006: Certificate of PC Maintenance,** Faculty of Engineering - Cairo University, Cairo, Egypt**.** **2007: Certificate of Web Design Diploma,** Vision Technologies Academy**,** Assuit, Egypt**.** **2007**: **Certified of Database Design Using SQL Server 2005,** Faculty of Engineering - Cairo University, Cairo, Egypt. **2008: Certificate of International Computer Driving Licence,** Vision Academy, Cairo, Egypt**.** **2008: Certified of Networking Diploma,** Vision Academy, Cairo, Egypt**.**

Subjects Teaching Experiences	Problem-solving, Programming languages, Technical writing, Software development, Data analysis, Information systems management, Linear algebra, Database, Data Mining, Text Mining, and Knowledge Discovery, Natural Language Processing(NLP), Big Data, Machine Learning, Deep Neural Network, Big Data Analytics Platforms, Data Science, Sentiment Analysis, Big Data Stream Processing. And the Internet of Things, Object-oriented programming, Algorithms, System Analysis, SQL, Data Structure, File Structure, Time series forecasting, Java, and Python.

References	Prof. Dr.Shaker El-Sappagh, Research Professor in Department of Information and Communication Engineering, UWB Wireless Communications Research

Center, Inha University, Incheon, South Korea.
Email: sh.elsappagh@gmail.com

- Dr. Radhya SahalYahya Abdullah, Post-Dr in Data Science Institute, National University of Ireland, Galway, Ireland.
Email: radhya.sahal.dsi@gmail.com

- Dr. Abdeltawab Hendawi, Dr. Computer Science and Statistics, University of Rhode Island, USA
Email: a.hendawi@fci-cu.edu.eg

- Prof. Dr.Mohamed Khafagy, Assistant Professor Computer Science Department, Faculty of Computers and Information, Fayoum University, Fayoum, Egypt.
Email: Mhk00@fayoum.edu.eg

- Dr. Emain Younis, Assistant Professor in Information Systems Department, Faculty of Computers and Information, Minia University, Egypt
Email: eman.younas@mu.edu.eg

- Dr.Ahmed Ibrahim Talouba Mohamed, Dr. Information System Department, Faculty of Computers and Information, Assiut University, Assiut, Egypt.
Email: ahmedtaloba@gmail.com

- Prof. Dr. Abdelmgeid A. Ali, Prof in the Computer Science Department, Faculty of Computers and Information, Minia University, Egypt.
Email: abdelmgeid@yahoo.com