MOHAMED REDA SHOAIB

MACHINE LEARNING & DATA SCIENTIST ENGINEER

CONTACT DETAILS

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Nanyang Ave, Singapore

CAREER OBJECTIVES

Self-driven in work and a team player with good communication skills, seeking to join a good team. Interested in biomedical, data science fields and the Utilization of artificial intelligence techniques in health care applications and many other applications.

SKILLS

- Machine learning, Deep Learning, Transfer Learning, Object Detection, and Amazon Personalized Tools.
- Time Series and Forecasting.
- Computer Vision, Image Processing, NLP, Recommender System, and Reinforcement System.
- Embedded System Skills.
- Languages: C, Python, and MATLAB.
- Basics Problem Solving.
- Tensor Flow, Keras, Scikit-learn, Yolo, RNN, GAN, and Big data with Spark.
- Data visualization and Plotly and Dashboard.

EXPERIENCE

NTU (Nanyang Technological University, Singapore)

DOCTOR OF PHILOSOPHY at the School of Computer Science and Engineering (SCSE) (FULL-TIME)
JAN 2023.
Working as a full-time Researcher in the fields of Machine Learning, Data Science, and Artificial Intelligence. Working on applications like how to apply AI in Biomedical, Agriculture, and communication.

Shgardi Company

Machine Learning Engineer and Data Scientist Engineer.
FEB 2022.
Working as a full-time Machine Learning Engineer at Shgardi company, a company that uses Amazon Personalized tool and time-series data for recommendation systems. In addition, working on fraud and fack user interactions.

EDUCATION

Information Technology Institute (ITI)

Diploma in Artificial Intelligence powered by EPITA School of Engineering and Computer Science.
APR 2021 - JAN 2022

Faculty of Engineering, Menoufia University.

Master's degree in Engineering Science.
Subject: Utilization of Artificial Intelligence Techniques in Healthcare Applications. (Pre-Master GPA: 3.46/4)
Oct 2019 - MARCH 2022

CERTIFICATIONS

Udacity Certified

AWS Machine Learning Foundations Nanodegree Program (2021)

Data Camp Certified

Data scientist, Data analyst, and Python programming Career Tracks. (2021)

IBM Certified

ML, Data Science, NLP, and AI courses. (2020)

Udemy Certified

ML, Data Science, NLP, and DL courses. (2019)

Machine Learning Specialization, Deep Learning Specialization

Master fundamental AI concepts and develop practical machine learning skills in the beginner-friendly, In addition, Master the fundamentals of deep learning and break into AI. Recently updated with cutting-edge techniques!

PROJECTS

Utilization of Advanced Artificial Intelligence Tools for Critical Environmental Applications

May 2023

- ·Utilizing deep learning to overcome challenges in extracting useful information from plant images and satellite images.
- ·Combining data from various sources and sensor types to account for variations in lighting and sensor characteristics.
- Using image processing techniques and deep learning to develop smart agriculture applications.
- Using a spectral-spatial CNN to classify objects within the images .
- ·Evaluating and fine-tuning the models to improve performance.
- ·Deploying the trained models in a platform for satellite imagery analysis.
- ·Encryption and compression techniques will be used for more secure smart agriculture system.

WEB API for Time Series Forecasting

February 2022

- Deep learning models for Forecasting (LSTM).
- Data Preprocessing with Python.
- Web API for Production Implementation.
- Our goal is to predict the number of orders that can occur in a specific zone or location and time interval.

DL for Recommendation System

February 2022

- Amazon Personalize Tools.
- Deep learning models for Recommendation.
- Data Preprocessing with Python.
- Web API for Production Implementation.

DI for Brain Tumor Diagnosis

November 2021

- Deep learning models for classification.
- Different Image Processing Techniques: augmentation, Segmentation, and Super Resolution.
- Hardware Implementation with Web API.

Publications

- **Mohamed R. Shoaib et al, "Hybrid Classification Structures for Automatic COVID-19 Detection ", published in Ambient Intelligence and Humanized Computing in 21- Dec 2021 pp, 1-16. DOI: 10.1007/s12652-021-03686-9.**
- **Emara, H.M.; Shoaib, M.R.et al, "Simultaneous Super-Resolution and Classification of Lung Disease Scans." Diagnostics 2023, 13, 1319. https://doi.org/10.3390/diagnostics13071319.**
- **Heba M Emara, Mohamed R. Shoaib et al, "Deep Convolutional Neural Networks for COVID-19 Automatic Diagnosis", published in Microscopy Research and Technique on 31- Jan 2021. Nov 84, No. 11 (2021) pp.2504-2516. DOI: https://doi.org/10.1002/jemt.23713.**
- **Mohamed R. Shoaib et al, "Efficient Deep Learning Models for Brain Tumor Detection with Segmentation and Data Augmentation Techniques.", published in Concurrency and Computation: Practice and Experience on 08-Jan-2022. DOI: https://doi.org/10.1002/cpe.7031.**
- **Hanan S Ghanem, Mohamed R. Shoaib et al, "Automatic modulation classification with 2D transforms and convolutional neural network", published in Transactions on Emerging Telecommunications Technologies on 22 August 2022. DOI: https://doi.org/10.1002/ett.4623.**
- **Mohamed R. Shoaib et al, "Efficient Brain Tumor Detection Based on Deep Learning Models", published in ICaTAS conference J. Phys.: Conf. Ser. 2128 012012, IOP Publishing in 24- Dec 2021 vol. 2128, No. 1, pp. 012012.**
- **Taher, Fatma, Mohamed R. Shoaib et al. "Efficient Framework for Brain Tumor Detection Using Different Deep Learning Techniques.", published in Frontiers in Public Health in 2022. DOI: 10.3389/fpubh.2022.959667. p.3374.**

CONFERENCES

- **The 3rd International Conference on Electrical, Computer, Communications, and Mechatronics Engineering (ICECCME) IEEE Conference record number: 57830**. Participate in this conference by submitting a paper and delivering a presentation about this paper in July 2023.
- **ICaTAS 2021: The 6th International Conference on Advanced Technology and Applied Sciences. Journal of Physics: Conference Series, Volume 2128, 12-14 October 2021, Cairo, Egypt.** Participate in this conference by submitting a paper and delivering a presentation about this paper