

SHAIMAA KOUKA

M A C H I N E L E A R N I N G E N G I N E E R



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PROFILE

Determined and driven data scientist using deep learning and machine learning for industrial and academic purposes. I have a strong background in mathematics, combinatorial optimization, machine learning, deep learning, natural language processing, and engineering.

SKILLS

ML & DL

- Matlab, Tensorflow, Keras, Scikit-Learn, PySpark, OpenCV, Pandas, Numpy, cuML, CuPY, cuDF, cuDNN, LSTM-cuDNN

Business Intelligence

- Microsoft PowerBI, Tableau , SQL , Python, R , Streamlit, folium, Plotly

Coding Languages

- Python, JS, Java, C/C++, Bash

Web Development

- HTML, CSS, JS, MongoDB, React, Node.JS, Bootstrap, JQuery, Streamlit, MUI

Deployment

- GIT, GitHub, Docker, Netlify, Heroku

EXPERIENCE

GRADUATE RESEARCH ASSOCIATE

Ajman University

2021 - 2023

- Conduct Research papers on the topics of AI: such as deep learning, Evolutionary computations, Natural Language Processing, Computer Vision
- Build BI and AI tools for enterprises
- Organize and conduct workshops for MSc-AI students, AU faculty, High School Students
- Training MSc-AI students on applying AI using open-source libraries and as well as building it from scratch

TEACHING ASSISTANT

Ajman University

Jan 2020- March 2020

For introduction to programming with MATLAB course and Programming for Engineers. Responsibilities includes:

- Solve programming exercises (C++/Matlab)
- Conduct Laboratory sessions and assist students understanding programming concepts
- Debug students' code
- Contribute in writing assignments for the course

EDUCATION

MASTER OF SCIENCE IN ARTIFICIAL INTELLIGENCE

Ajman University - CGPA :3.86

2021- present

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

Ajman University- CGPA :3.96

2016 - 2020

AWARDS

First Place in MERN Bootcamp

AstroLabs | March 2020

AU Students' Research Day

Ajman University | June 2020

Honor Student for 4 consecutive years

Ajman University | 2017-2019

Honor Student for 3 consecutive years

Ajman Private School | 2012-2015

CERTIFICATES

NATURAL LANGUAGE PROCESSING IN TENSORFLOW

Coursera

CONVOLUTIONAL NEURAL NETWORKS IN TENSORFLOW

Coursera

TENSORFLOW FOR ARTIFICIAL INTELLIGENCE, MACHINE LEARNING, AND DEEP LEARNING

Coursera

DATA SCIENCE BOOTCAMP

AstroLabs

MERN STACK BOOTCAMP

AstroLabs

LINEAR ALGEBRA FOR MACHINE LEARNING AND DATA SCIENCE

Coursera

IELTS ACADEMIC

IELTS Official - overall band 7.0

PROJECTS

PUBLIC TRANSPORTATION USER SATISFACTION ANALYSIS TOOL

Ajman Statistics Center

Using Microsoft **PowerBI** and Python **TensorFlow**

PART OF SPEECH TAGGING (POS) FOR ARABIC LANGUAGE

- Bidirectional **LSTM** Model
- K-Nearest Neighbor (**KNN**)

PRO-TASK

- Time Management **REACT** Application with Voice Command Control using **AI** Voice Recognition Model

AI-BASED QSAR FOR ALZHEIMER'S DISEASE

- AI-based Quantitative structure Activity Relationship study for Alzheimer's disease (**Regression Problem**)
- The models used: Random Forest, Gradient Boosted Regressor, K Nearest Neighbor, Support Vector Machine

WORKSHOPS

- Python Workshops
- Data Preprocessing
- Virtual Voice Assistant Application
- Writing Research Papers using Overleaf-Latex
- Game Development

PUBLICATIONS

RECENT APPLICATIONS AND ADVANCES OF MIGRATING BIRDS OPTIMIZATION

Springer, DOI : <https://doi.org/10.1007/s11831-023-09984-z>

MACHINE LEARNING APPROACH FOR THE DESIGN OF AN ASSESSMENT OUTCOMES RECOMMENDATION SYSTEM

IEEE, DOI : <https://doi.org/10.1109/ACIT53391.2021.9677281>

A NEURAL-ASSESSMENT SYSTEM BASED ON EMIRATES (QFE)

ACM, DOI : <https://doi.org/10.1145/3393822.3432320>