

# 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

### Business Intelligence

- Microsoft PowerBI, Python, R

### Coding Languages

- Python, JS, SQL, 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 - Present

- 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

2021- present

### BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

Ajman University- CGPA :3.96

2016 - 2020

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## 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

## PROJECTS

### **PUBLIC TRANSPORTATION USER SATISFACTION ANALYSIS TOOL**

Ajman Statistics and competitiveness Centre  
Using Microsoft **PowerBI** and Python **TensorFlow**

### **WORKSHOPS**

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

### **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

## PUBLICATIONS

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

DOI : 10.1109/ACIT53391.2021.9677281  
2021 22nd International Arab Conference on Information  
Technology (ACIT), IEEE