

# MAHA AGRO

## SOFTWARE ENGINEER

### GET IN CONTACT

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### PERSONAL PROFILE

A dedicated software engineer with excellent grip in C, Python, Java programming languages and hands-on experience in various data science techniques to gain insights from complex problems and in applying appropriate machine learning techniques

### TOOLS AND TECHNOLOGIES

- Python, Java (8+), HTML, CSS, JavaScript and bootstrap experience.
- Version control with Git and GitHub.
- Fluency with transactional databases: Oracle, Postgresql and NoSQL databases: MongoDB.
- Hands on experience with Python's web development frameworks and libraies: Flask, SQLAlchemy, Django.
- Hands on experience with Python's machine learning libraries: Scikit-Learn, Scipy, Pandas, Matplotlib, numpy.
- Working knowledge of Linux OS.
- IDE's: MS Visual Studio, Eclipse, PyCharm.

### WORK EXPERIENCE

#### DATA SCIENCE TRAINEE

**Pakistan State Oil | 04-may-2021 to 16-july-2021**

- Retrieved and analyzed sales data from PSO's COCO sites
- Obtained sales predictions and sales comparisons with the help of Python's data science libraries. Ex: Numpy and Pandas.
- Used SAP Support Portal to perform sales, invoice, and ship-meant reversals.

#### INTERN

**Tarmin | 10-dec-2019 to 30-dec-2019**

- Created virtual machines
- Configured IP addresses and DNS.
- Configured active directory and exchange server.
- Utilized Tarmin's official REST API to retrieve and upload data on server

### OTHER SKILLS

- The ability to analyze complex technical information
- Can analyze, design and implement database structures
- Detail oriented
- Excellent problem solver

### EDUCATION HISTORY

**MOHAMED BIN ZAYED UNIVERSITY OF ARTIFICIAL INTELLIGENCE**  
**Masters in NLP, 2021-2023**

**MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY**  
**Bachelor of Engineering, 2016-2020 | CGPA: 3.87**

- Coursework in machine learning, data science, object oriented programming, database management, operating systems, computer network management.
- Winner in Python programming, Tech Arena 2020 held at Mehran University of Engineering and Technology
- Configured active directory and exchange server.
- Member of Developer Student Club Jamshoro's expert group..Volunteered in various educational seminars as a secondary instructor.

### PUBLICATIONS

- Authors: F. Azam, M. Agro, M. Sami, M. H. Abro and A. Dewani, "**Identifying Depression Among Twitter Users using Sentiment Analysis**," 2021 International Conference on Artificial Intelligence (ICAI), 2021, pp. 44-49, doi: 10.1109/ICAI52203.2021.9445271.
- Authors: Agro, Maha, and Azam, Fiza. **Identifying Polarity of Twitter Sentiments using Traditional Knowledge Engineering Algorithms**. The 11th International Conference on the Internet, 2019.
- Presentation: **Identifying Polarity of Twitter Sentiments using Traditional Knowledge Engineering Algorithms. The 11th International Conference on the Internet**. Hanoi, Vietnam, 2019.

## PROJECTS

### Identifying Depression Rate among Age Groups through Social Networks using Sentiment Analysis

- Used data scraping techniques to identify depressed users and extract Tweet data from their profiles
- Used python's nltk library to clean the obtained raw data
- Structured data with the help of pandas library, utilized sci-kit learn for vectorization
- Implemented SVM and Random Forest algorithms on the obtained data and obtained depression rate

### Minmax based tik-tac-toe game

- Using Minmax, implemented an AI to play tik-tac-toe game optimally

### Sentiment Analysis Web App

- Integrated an ML based backend to a frontend developed with HTML, CSS, FLASK and JINJA
- Used nltk, numpy, sci-kit learn to write a sentiment analysis application
- User entered a Twitter display name, a pie graph depicting the sentimentality of Tweets obtained from the Twitter user's profile

### Annoying Alarm Clock Android App

- Used android studio to develop an app that won't stop ringing until exposed to sunlight

### Knowledge-Based Agent Minesweeper Game

- Implemented a knowledge-based agent to play the minesweeper game with Python

## ADDITIONAL COURSES

- CS50: Harvard's Introduction to the Intellectual Enterprise of Computer Science | Audit
- CS50W: Web Development With Python and JavaScript | Audit
- CSS50AI: Introduction to Artificial Intelligence with Python | Verified
- Algorithms Part 1 (Coursera) | Audit
- Google's IT automation certification | Audit