

HUSSEIN AL SAKKAF

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Professional Statement

Driven and adaptable professional with a strong foundation in engineering and management, transitioning into data engineering. With experience in engineering and oil and gas management, I have expertise in monitoring operations, analysing complex data, and optimising processes. Proficient in Python and SQL, with growing expertise in cloud computing and database systems. Passionate about leveraging my analytical and problem-solving skills to transform raw data into actionable insights, I am excited to contribute to innovative projects in the evolving data landscape.

Technical Skills

PROGRAMMING & SCRIPTING: Python (Pandas, ETL Pipelines, FastAPI, Pytest, Jupyter Notebooks, Web Scraping, Automation, Data Cleaning, File Handling, Data Analysis) | JavaScript (Node.js, React) | SQL (MySQL, PostgreSQL)

WEB DEVELOPMENT: HTML | CSS | JavaScript | React | FastAPI | Node.js

API DEVELOPMENT: FastAPI | Node.js | Requests | API Integration

CLOUD TECHNOLOGIES: AWS (EC2, Lambda, RDS, CloudWatch, IAM, AWS API, Athena, Glue, Step Functions, Cloud Automation)

DATABASE MANAGEMENT: PostgreSQL | MySQL | Data Transformation | Database Modeling | Normalization | Data Warehousing (Star Schema, Data Lake)

DEVELOPMENT PRACTICES: Agile/Scrum | Test-Driven Development (TDD)

VERSION CONTROL: Git | GitHub

VISUALIZATION & ANALYSIS: Pandas | Exce

CYBERSECURITY: Network Security Protocols | Authentication & Identity Management | Data Privacy & Protection | Incident Response | Risk Management | Secure Application Concepts

Projects

Data Engineering ETL Pipeline | Tech: AWS (S3, Lambda, CloudWatch, EventBridge, Step Functions), Python, PostgreSQL, Pandas, Terraform, CI/CD

Link: https://github.com/HusseinAlsakkaf/ETL_Pipeline_project/

Brief: Designed and implemented a robust ETL pipeline to extract, transform, and load data from ToteSys (PostgreSQL) into an AWS-hosted data warehouse. Built a fully automated system running on a 30-minute schedule, using Python-based Lambda functions for extraction, transformation (into a star schema with Pandas), and loading into the warehouse. Ensured data immutability and history tracking by creating new files for updates and maintaining a full history of fact tables.

Implemented Infrastructure-as-Code (IaC) with Terraform and CI/CD for automated deployment. Achieved >90% test coverage, PEP8 compliance, and security checks with Bandit and pip-audit. Monitored performance via CloudWatch logs and set up email alerts for failures, delivering a scalable, secure, and well-documented solution reflecting source changes within 30 minutes.

Professional Experience

Junior Data Engineer Trainee

Northcoders | Dec 2024 – Present

- Developed hands-on projects focused on data engineering principles using modern cloud-based tools and best practices
- Applied AWS services (S3, Lambda, CloudWatch, EventBridge, Step Functions) to build scalable data pipelines and enhance cloud infrastructure

- Collaborated with peers to work on real-world datasets, focusing on scalability and performance
- Gained proficiency in cloud computing, database management, and data engineering workflows
- Worked with Python to implement robust and efficient data solutions
- Applied Object-Oriented Programming (OOP) principles to design and develop modular, reusable, and maintainable code
- Designed and managed databases using PostgreSQL, ensuring data integrity and optimal query performance
- Built and deployed RESTful APIs with FastAPI for seamless data integration and accessibility
- Engaged in Agile development processes, emphasising collaboration, continuous learning, and iterative improvement

Interpreter

Word360 | Nov 2022 – Present

- Delivered precise Arabic interpretation for medical and professional contexts
- Managed and maintained data confidentiality, ensuring accuracy and adherence to professional standards

Field Interviewer

Kantar Public | Nov 2022 – Dec 2023

- Conducted structured data collection for large-scale surveys, ensuring high accuracy and reliability in reporting
- Developed strong organisational and multitasking skills while managing private and confidential data

Cyber Security - Course

Twin Employment | May 2022 – Nov 2022

Developed skills in implementing secure network designs, authentication controls, and data privacy strategies, alongside experience in incident response and risk management to enhance data protection and cybersecurity resilience.

Full Stack Web Developer Trainee

Code Your Future | Feb 2020 – Apr 2022

- Designed, built, and deployed responsive web applications using **HTML**, **CSS**, **JavaScript**, **React**, and **Node.js**.
- Developed and consumed RESTful APIs to enable efficient data handling and communication between client and server.
- Gained experience in **data transformation processes**, integrating APIs and processing JSON/CSV data for dynamic applications.
- Strengthened problem-solving skills by applying **algorithmic thinking** and optimising workflows for scalability.
- Collaborated in Agile teams to deliver projects, utilising **Git** and **GitHub** for version control and code collaboration.
- Worked with **databases** like **MySQL** for backend data storage and retrieval.

Education

Master of Science in Oil and Gas Management | Coventry University | 2018–2019

Bachelor of Engineering in Chemical Engineering | Nagpur University | 2009–2013

Diploma in Instrumentation and Process Automation | Avidus Engineering Pvt Ltd | Oct 2013 – Oct 2014

Advanced Diploma in Fire, Construction, and Industrial Safety Engineering | Institute for Advanced Safety Management | Aug 2013 – Aug 2014

Languages

Arabic: Native

English: Fluent (TOEFL: 83, IELTS: 6.5)