

Lilia Deiri

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London, UK

Summary

Experienced **Software Engineer** with over **2 years** of professional experience in delivering data & AI solutions. An **Imperial College London** graduate and a certified **Google Cloud Machine Learning Engineer**. Proficient in **Python** and seeking opportunities to contribute to the latest developments in the data space.

Experience

Associate Engineer, Publicis Sapient, London

Sept 2022 - December 2024

- Worked on the development and finetuning of an OpenAI **Large Language Model (LLM)** in the Generative AI space. Involved in building and maintaining the API endpoints using **FastAPI** and **Pydantic**, integrated with **MongoDB** databases.
- Trained and deployed a **Deep Learning** based **data generator** in python, using **relational databases**. Integrated with a **Flask UI** for comparing data distributions of different models, significantly improving the quality and distribution of testing data for clients.
- Reduced data access time for Financial Services client through integration of a **data lake platform** on Google Cloud, significantly increasing efficiency and reducing costs of data transfer between systems. Responsibilities included provisioning and integrating Google Cloud data sources (**CloudSQL & BigQuery**) using **Terraform**, executing metadata storage strategy, and managing **Kubernetes** clusters.
- Streamlined a financial client's **fraudulent transaction detection** capabilities by building a **real time event streaming** platform with **Kafka Streams** and **Google Cloud**. Focused on the **encryption strategy** for personally identifiable information (PII).
- Built a full stack proof of concept web application for a retail client with a **Python, Django, MongoDB** tech stack for improving customers' in-store experience.

Electrical Engineer, Schlumberger Plc, Stonehouse

June 2021 - Sept 2021

- Took part in talks and discussions focused on the shift towards **clean and sustainable energy**.

Education

Imperial College London, MSc in Applied Machine Learning

Sept 2021 – Oct 2022

- Merit
- Thesis on Predicting Cancer Drug Synergism using Self-Training Models

University of Bristol, BEng in Electrical & Electronic Engineering

Sept 2018 – July 2021

- First Class Honours
- Thesis on Predicting Eye disease using Convolutional Neural Networks
- President of Pottery Society in 2019

Certifications

- Google Cloud Professional Machine Learning Engineer (September 2024)
- MongoDB SI Associate (May 2024)
- Google Associate Cloud Engineer (August 2023)

Projects

Paint by numbers generator

- Built a paint by numbers generator in Python for custom images using **clustering algorithms** and image processing techniques.
- Integrated with a **Flask UI** for image upload and download.

Push-up helper device

- Built a device that uses convolutional neural networks to provide real time feedback on push-up technique.
- Used Arduino and IMU sensors attached to the neck, waist and arms, and transmitting data via Bluetooth using C++ and Tensorflow lite.

Handwriting Robot

- Programmed an ABB Yumi Robot integrated with an Intel RealSense camera and a microphone.
- Using speech to text, image to text, and ROS, Yumi would produce handwritten text on an exam paper, based on user voice input.

Technical Skills

- Skilled in Python data analysis libraries **Numpy, Pandas, Matplotlib, Plotly, Pydantic, Flask, FastAPI**
- Proficient in several Machine Learning frameworks and libraries such as **Scikit-learn, Tensorflow, Keras, XGBoost, Tesseract OCR**
- Familiar with **Java Springboot** and **Microservices** architecture
- Utilised **MySQL, SQLite, BigQuery, MongoDB** for data management
- Worked with **Apache Kafka** on real time event streaming applications
- Experienced in CI/CD tools including **Docker, Jenkins, Terraform, OpenShift.**
- Used **Git, Github, Gitlab** for version control.