

Aya Tantaoui

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ABOUT ME

Data Scientist with a strong focus on machine learning and advanced Python development. Experienced in transforming complex datasets into actionable insights through exploratory analysis, feature engineering, and predictive modelling. Hands-on experience designing, validating, and integrating ML models into end-to-end data pipelines, with a strong interest in taking models from experimentation into production. Highly analytical, curious, and comfortable collaborating across technical and business teams.

EDUCATION

B.Sc. in Computer Science

University of Hertfordshire
September 2021 - May 2025

LINKS

 github.com/AyaTantaoui
 [linkedin.com/in/aya-tantaoui-56405b23a](https://www.linkedin.com/in/aya-tantaoui-56405b23a)

GPA & RELEVANT COURSES

GPA - 4.22

Course - Programming and Discrete Structures

Course - Machine learning and Neural Networks

Course - Data Modelling for Databases

Course - Social and collective AI

Course - Algorithms and data structures

Course - Principles and practices of large scale programming

SKILLS

Advanced:

Python, SQL, machine learning, snowflake, Data Cleaning, Data Validation, Feature Engineering, Predictive Modelling, Data Visualisation

Familiar:

C, HTML, CSS, Java, Assembly Language

EXPERIENCE

Data science placement at Legal and General

From: 07/2023 To: 08/2024

- Designed, trained, and evaluated machine learning models (classification and regression) to support analytics, risk, and reporting use cases.
- Conducted in-depth exploratory data analysis, feature engineering, and data cleaning on large, multi-source datasets.
- Built reproducible ML experiments, tracking parameters, metrics, and model versions using MLflow.
- Developed production-grade Python pipelines for data processing, validation, and model integration.
- Analysed model performance and business impact, iterating to improve accuracy, robustness, and interpretability.
- Collaborated with engineers, analysts, and stakeholders to translate model outputs into actionable insights.
- Supported deployed systems by debugging issues, monitoring data quality, and implementing improvements.

PROJECTS

- **Fraud Detection Predictive Modelling:** Built ML models to detect anomalous transactions in highly imbalanced datasets. Applied feature engineering, resampling strategies, and model evaluation techniques to optimise performance. Used explainable AI techniques to interpret predictions and support trust in model outputs.
- **Machine Learning Systems:** Integrated trained models into data pipelines for downstream consumption. Experimented with multiple algorithms and hyperparameters to identify optimal solutions.

CAREER OBJECTIVES

- I am seeking a Data Scientist role where I can apply strong Python and machine learning expertise to build, optimise, and deploy impactful predictive models. I am particularly motivated by roles that value experimentation, production-ready solutions, and collaboration across engineering and business teams.

CERTIFICATES

Google Data Analytics Professional Certificate -

July 25 2022

- Processing Data from Dirty to Clean
- Preparing Data for Exploration
- Data Analysis with R Programming
- Analyzing Data to Answer Questions
- Share Data Through the Art of Visualization

C for Everyone: Programming Fundamentals -

August 11 2022

KEY STRENGTHS

- **Advanced Python ML engineering:** Comfortable writing efficient, scalable Python code for data analysis, modelling, and experimentation.
- **Strong ML fundamentals:** Deep understanding of model mechanics, evaluation, optimisation, and trade-offs.
- **End-to-end ownership:** Experienced taking projects from raw data through modelling to deployment-ready pipelines.
- **Analytical problem solver:** Excels at breaking down ambiguous business problems into structured, testable ML solutions.
- **Experiment-driven mindset:** Enjoys hypothesis testing, A/B testing concepts, and iterative model improvement.
- **Data storytelling:** Able to clearly communicate complex model outputs and insights to both technical and non-technical audiences.
- **Curious and proactive:** Actively explores new techniques, tools, and research to improve model performance and impact.

