

DIAKHÈRE GUEYE

Human-Centred Technology · Machine Learning · AI Deployment

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SUMMARY

École Polytechnique graduate in mathematics and physics with an MSc in Cognitive Science from the University of Edinburgh. Advises AI teams on turning prototypes into field-ready systems, from annotation and ground-truth design to human-factors reviews, and has delivered applied-AI programmes to over one hundred executives across five countries. Earlier, at the IAEA, designed an international machine-learning challenge on fusion-disruption prediction and trained predictive models in TensorFlow and XGBoost.

EXPERIENCE

Research Consultant, Visentis GmbH

Jan 2026 – Jul 2026

Deep-tech AI startup (computer vision, multi-agent systems, edge AI), Zug, Switzerland · remote

- Advised on experimental design for a prototype physics-informed multi-camera sports-analytics system, including annotation guidelines and ground-truth procedures for its first field data-collection campaign.
- Conducted usability reviews of a prototype mobile health-coaching application and recommended improvements to its core user flows.

Associate Consultant, Executive Training & AI Integration, Groupe Afrique Challenge

Feb 2024 – Dec 2025

Casablanca · deployments in France, the UAE, Türkiye and Belgium

- Co-delivered executive programmes on applying AI in business for 100+ executives and managers from around ten public- and private-sector organisations across five African countries.
- Supported programme design and tailored content to participants' own business processes and sector context, from LLM fundamentals to hands-on application in daily work.
- Co-delivered Process Communication Model (PCM) modules on management and team communication for the same audiences.

Machine Learning Intern, International Atomic Energy Agency (IAEA)

Oct 2022 – Jun 2023

Vienna, Austria

- Designed an international machine-learning challenge on disruption prediction for nuclear-fusion (tokamak) experiments and authored its technical documentation.
- Harmonised experimental data from multiple tokamak devices into a common format for cross-machine prediction; trained predictive models in TensorFlow and XGBoost.
- Moderated 5 international webinars on the ITU AI for Good platform (4,800+ combined views), coordinating IAEA-ITU stakeholders.

Research Intern (BSc thesis), ScienceAtHome Lab, Aarhus University

Feb 2020 – Apr 2020

Aarhus, Denmark

- Built a gamified image-classification interface (Python, PyQt5) to study human problem-solving strategies against theoretical models from quantum physics (Fermi-Hubbard).

EDUCATION

MSc Cognitive Science (Merit), University of Edinburgh

2020 – 2021

- Dissertation: "Testing the Assumptions of the Google Quantum Supremacy Experiment", covering Fourier analysis of noise in sampled output distributions and a heuristic model of coefficient decay (Python).
- Applied UX projects: user research and redesign concepts for the Learn platform (interviews, personas, usability testing, Figma); "Time Scale", a behavioural screen-use tool built via autoethnography and qualitative research.

BSc Mathematics & Physics, École Polytechnique (L'X), Paris

2017 – 2020

- Coursework: probability & statistics, linear algebra, numerical methods, mathematical modelling, scientific computing (Python), algorithms (C++). Exchange semester: King's College London.

SKILLS

Tools & Technologies: Python, SQL, C++, TensorFlow, Keras, PyTorch, XGBoost, Jupyter, Git/GitHub, Figma, LaTeX

Methods: experimental design, inferential & descriptive statistics, feature engineering, data analysis, usability testing, user research & survey design, computational modelling, design thinking, executive facilitation & curriculum design

Domains: generative AI & LLM applications, AI integration in business operations, machine learning, human-computer interaction, cognitive science

Languages: French (native), English (fluent), Spanish & Arabic (intermediate), Wolof (beginner)

Training & Awards: Project management (ISO 21500), DTU summer school certificate, 2019 · Winner, "La parole aux étudiants" (Rencontres Économiques d'Aix, 2018)