Dr. Miquel Oliver

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Summary

Director / Tech Lead and Senior ML Engineer with 9+ years delivering **Azure-native AI platforms**, **LLM/ML systems**, and **mission-critical model infrastructure**. Expert in **Databricks UC, MLflow, AKS/Kubernetes, GitLab CI**, and full lifecycle LLM evaluation, governance, and serving. Proven record building **enterprise-scale AI platforms**, improving reliability, and accelerating ML/LLM delivery across regulated environments.

Experience

Director / Tech Lead — AI Engineering, UBS

Zurich, Switzerland • 2024–2025

- Owned the bank-wide **AI/LLM platform architecture** (Databricks UC, MLflow, AKS, GPU workloads, GitLab CI, identity/namespace isolation).
- Designed automated **LLM product workflows** (evaluation → registration → governed deployment), embedding regulatory and evidence requirements.
- Delivered LLM-driven automation for internal reporting, cutting cycle time by **60%** and standardizing reproducible model delivery patterns.
- Established enterprise ML standards for evaluation, lineage, auditability, CI/CD evidence capture & deployment.
- Provided technical leadership across teams; reviewed AI solution designs, LLM governance models, and productionization patterns.

Senior AI Engineer, UBS

Zurich, Switzerland • 2022–2024

- Built the central ML deployment stack: **AKS model serving**, MLflow Registry, GPU workflows, shared Python/ML environments, GitLab CI pipelines.
- Delivered global NLP routing infrastructure with **20× throughput improvement**, used across operations and large-scale automation pipelines.
- Developed enterprise voice/text surveillance systems with embeddings, transformers, and batch/streaming inference via vLLM.
- Defined ML engineering standards for reproducibility, versioning, lineage, and AAD identity patterns, adopted organization-wide.
- Partnered with cloud/security teams to deploy ML systems under strict data-residency and compliance requirements.

Senior Machine Learning Engineer, Crayon

Vienna, Austria • 2020–2022

- Built ML solutions across forecasting, recommender systems, and predictive maintenance for enterprise clients.
- Designed and deployed **Azure ML & Kubernetes-based MLOps pipelines** enabling automated retraining and monitored rollouts on Azure.
- Implemented end-to-end ML architectures (ingestion → features → training → serving → monitoring) improving delivery reliability, **Databricks** & **Azure ML**.
- Mentored engineers on ML engineering, MLOps best practices, and production ML workflows.

Data Scientist, TrueWorld & IAC3

Spain • 2019–2020

- Developed ML pipelines for environmental and scientific data applications, optimizing analysis and model robustness.
- Containerized ML workflows and automated deployments with CI/CD for reproducible science workloads.
- Supported large-scale modeling projects via high-performance data analysis and experimental automation.

Research

Ph.D. Researcher — Relativity, ML & Signal Detection, UIB & Caltech

2015–2019

- Cut computational cost of gravitational-wave generative models by **50×** using ML-driven approximations.
- Published **10+ papers** in ML, Bayesian inference, and signal processing for astrophysics.
- Developed algorithms improving detector pipeline sensitivity by **30%** (Max Planck Institute, Caltech LIGO).
- Built high-performance tools supporting large-scale scientific inference and data analysis.

Technical Skills

AI/ML: LLMs, transformers, embeddings, NLP, deep learning, evaluation, model governance **Platforms:** Databricks, MLflow, AKS/Kubernetes, Helm, GitLab CI, Workload Identity, Terraform **Engineering:** Python, FastAPI, PyTorch, Ray, Docker, microservices **Cloud:** Azure (primary), AWS (secondary) **MLOps:** model serving, GPU workloads, inference optimization, observability **Languages:** English, Spanish, Catalan

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Honors & Awards

- Breakthrough Prize (LIGO Collaboration)
- Summa Cum Laude Ph.D.
- FPI Doctoral Scholarship

Certifications

- Azure Data Scientist Associate
- Agile PM
- Deep Learning Specialization