Luca Nyckees

Born on 27/08/1999
Data Scientist & Machine Learning Engineer
Ms. of Mathematics
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Summary

I am a data scientist with a 4 years work experience in machine learning research, data science projects and data engineering, and a Ms. in mathematics from EPFL. I am looking for opportunities where I can bring and build on this experience, in an environment offering both growth and continuous learning perspectives.

Work Experience

Data Scientist — Aug. 2022 - Oct. 2024
Quanthome SA — Lausanne, Switzerland

– Led and delivered 6 machine learning projects, supervised a team of 4 scientists, collaborated with UNIL's CRML lab.
– Head of machine learning operations (complete ML models life cycle: validation, versioning, monitoring, deployment).
– Contributed to the development of platform ideas and features tailored to client needs, enhancing business offering.

Data Science Intern — Dec. 2020 - Feb. 2022
Laboratory of Topology and Neuroscience of EPFL — Lausanne, Switzerland

– Analyzed COVID-19 contact tracing data using topological, statistical and graph data analysis methods.
– Conducted research and development in the field of topological data analysis (**arXiv preprint**).

Teaching Assistant — Sept. 2019 - June 2022
Mathematics Department of EPFL — Lausanne, Switzerland

– Performed teaching duties for 1st, 2nd, and 3rd-year courses for the informatics and mathematics departments.

Education

Master of Science	Mathematics	Ecole Polytechnique Federale de Lausanne (EPFL)	2020-2022
Bachelor of Science	Mathematics	Ecole Polytechnique Federale de Lausanne (EPFL)	2017-2020

Selection of Projects

LLM-Powered Product Recommendation System — 2024
Implementing a LLM-powered recommendation system for Amazon products, with complete ML life cycle and workflow. **GitHub**

Optimization Framework for Topological Metrics — 2020
Creating a TensorFlow framework for computing a class of topological metrics, with applications to image classification. **GitHub**

Statistical Analysis of Meteorological Data — 2021
Developing a web application including an interactive dashboard for analyzing and forecasting meteorological data. **GitHub**

Graph Label Prediction for Image Classification — 2020
Implementing a weak-supervised graph-based learning algorithm with applications to image classification. **GitHub**

Technical Skills

Programming Languages: Python (excellent), SQL (excellent), C++ (familiar), JavaScript (familiar)
DevOps/MLOps: CI/CD, Github Actions, Pytest, Docker, Apache Airflow, MLFlow, FTP server, OpenSSH
Databases: PostgreSQL (PostGIS), data warehousing principles, ETL, SQLite, Snowflake, Neo4j
Data Processing/Data Analysis: Pandas, Spark, Polars, GeoPandas, Numpy, Dash, Matplotlib, Plotly, Pyvis, NetworkX
Machine Learning (ML, Deep Learning, Gen AI, LLMs): Pytorch, TensorFlow, Keras, Scikit-learn, Scipy, Hugging Face, LangChain, OpenAI, RAG
APIs: REST, Flask, FastAPI

Languages

French (mother tongue), English (fluent), Italian (fluent), German (basic)

References

Félix Arbez-Gindre: CTO at **Quanthome SA** | f.arbez-gindre@quanthome.com
Prof. Kathryn Hess-Bellwald: Head of the **Lab of Topology and Neuroscience at EPFL** | kathryn.hess@epfl.ch