

LUCA NYCKEES

Mathematician | Data Scientist | Software enthusiast

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in Luca Massimo Nyckees

🔗 LucaNyckees

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📍 Lausanne, Switzerland

📁 Data Science Portfolio



WORK EXPERIENCE

Data scientist | Quanthome SA

📅 August 2022 - present

📍 Lausanne, Switzerland

- Applying a comprehensive data science stack (databases maintenance, data migration projects, machine learning engineering, workflow orchestration, CI/CD) - to applications focused on both financial and environmental data analysis as well as real estate market analysis. Responsibilities involved recruiting and supervising data science master students.

Research developer | Lab of Topology and Neuroscience, EPFL

📅 August 2021 - February 2022

📍 Lausanne, Switzerland

- Making a survey in computational geometry about zigzag persistence (a tool in topological data analysis used to study point-cloud data) and creating a Streamlit web application. 🔗

Data Science Intern | Lab of Topology and Neuroscience, EPFL

📅 December 2020 - August 2021

📍 Lausanne, Switzerland

- Studying and visualizing COVID19 tracing data through network and topological analysis. Creating an efficient pipeline and developing an interactive dashboard for data visualization.

Teaching assistant | Department of mathematics, EPFL

📅 2020-2022

📍 Lausanne, Switzerland

- Teaching duties for various 1st, 2nd and 3rd year courses in the mathematics and informatics programs. These included group and individual tutoring, grading of exams and the creation of exercises.

ACADEMIC PROJECTS SELECTION

More information can be found in my [Data Science Portfolio](#).

Statistical analysis of meteorological data | Python

📅 Autumn 2021

📍 Chair of Statistics, EPFL

- Web application for forecasting meteorological data. 🔗

Graph label prediction for image classification | Python

📅 Autumn 2020

📍 SML course, EPFL

- Semi-supervised graph-based learning for image analysis. 🔗

Deep learning for satellite image segmentation | Python

📅 Autumn 2020

📍 ML course, EPFL

- Studying CNN architectures for image segmentation.

Topological data analysis with Morse theory | Python

📅 Spring 2021

📍 Topology Laboratory, EPFL

- Implementing parametric Morse theory algorithms. 🔗

EDUCATION

Master degree in Mathematics

📅 2020 - 2022

📍 EPFL, Lausanne

- Focus: statistical data analysis & topology
- Extra-credits in the program of the data science master (ML courses and projects)

Bachelor degree in Mathematics

📅 2017 - 2020

📍 EPFL, Lausanne

- Focus on algebraic geometry.

COMPUTER SKILLS

LANGUAGES

- Python – excellent
- SQL – excellent
- HTML/CSS/JS/TS – familiar
- C++ – familiar

TOOLS/TECH

- Git Docker CI/CD

DATABASE

- SQL Postgres

WEB DEVELOPMENT

- React HTML/CSS/JS Flask FastAPI Streamlit

MATH LANGUAGES

- MATLAB R LaTeX

TECHNICAL AREAS

- Workflow orchestration
- Machine learning engineering CI/CD
- Software engineering Data architecture
- Statistical Data Analysis Graph Theory

LANGUAGES

- French – mother tongue
- English – bilingual proficiency
- Italian – bilingual proficiency
- German – limited working proficiency