LUCA NYCKEES

Mathematician | Data Scientist | Software enthusiast

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WORK EXPERIENCE

Data scientist | Quanthome SA

📅 August 2022 - now   📍 Lausanne, Switzerland

- Database maintenance, scrapers implementation, financial estimation pipeline, master theses supervision, development of ESG theory for the real estate domain, analysis of real estate investment funds data.

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 1rst, 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.

CURRICULAR PROJECTS

Statistical analysis of meteorological data | Python

📅 Autumn 2021   📍 Chair of Statistics, EPFL

- Web application and forecasting for meteorological data.

Mathematical modeling of behavior | Python, Biogeme

📅 Autumn 2020   📍 TRANSP-OR lab, EPFL

- Modeling human behavior for choice of transportation mode.

Graph label prediction for image classification | Python

📅 Autumn 2020   📍 SML course, EPFL

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

Deep learning for satellite image segmentation | Python

📅 Autumn 2020   📍 ML course, EPFL

- Studying CNN architectures for image segmentation.

Visualization of physical systems | C++

📅 Spring 2018   📍 OO Programing, EPFL

- Visualizing harmonic oscillator systems.

EDUCATION

Master degree in Mathematics

📅 2020 – 2022   📍 EPFL, Lausanne

- Focus on topological data analysis.
- Extra-credits in the program of computational neurosciences.

Bachelor degree in Mathematics

📅 2017 – 2020   📍 EPFL, Lausanne

- Focus on algebraic geometry.

European Baccalaureate

📅 2016 – 2017   📍 Varese, Italy

- Focus on mathematics and physics.

COMPUTER SKILLS

LANGUAGES

- Python : proficient
- C++ : familiar
- SQL : proficient
- HTML/CSS/JavaScript : proficient

FRONT-END

- React   Streamlit   Tableau

DATABASE

- PostgreSQL

MATH LANGUAGES

- MATLAB   R   LaTeX

TECHNICAL AREAS

Statistical machine learning   Geometry
Topological data analysis   Neuroscience
Data science   ESG criteria   Big Data
Financial Data Analysis   Graph theory

LANGUAGES

French | mother tongue
English
Italian
German