

Enea Monzio Compagnoni

PhD Student, B.Sc., M.Sc., M.Sc.

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AVAILABILITY FOR INTERNSHIP

I will be available from the **1st of July 2024**.

ACADEMIC EXPERIENCE

UNIVERSITÄT BASEL | PHD STUDENT AND LECTURER IN COMPUTER SCIENCE AND MATHS

10/22 – 10/25 | Basel, Switzerland

ACTIVITIES:

- Research in Stochastic Optimization for Deep Learning.
- Teaching Assistant for the Deep Learning Foundations and Optimization classes.

RESEARCH INTEREST:

- Stochastic Optimization • Implicit Bias • Deep Learning Theory.

INDUSTRY EXPERIENCE, 3+ YEARS

YAHOO! RESEARCH | SCALABLE ML TEAM - INTERN

07/23 – 09/23 | Munich, Germany

- Theorized and Implemented a Risk-Aware Framework for Optimal Control of Advertisement Budgeting.
- Increased Performance of the Spending Control by 4% (A/B Testing Included).

UBS AG | AI QUANTITATIVE ANALYST - FULL TIME

07/19 – 09/22 | Zurich, Switzerland

- Translated best practice of Credit Officers and Advisors into a concrete model for Lombard Lending to Ultra-High-Net-Worth Clients.
- Increased accuracy of Liquidity forecasting by 3%: Coupled extensive model selection, statistical hypothesis testing, and business requirements.
- Improved Anti-Money Laundering methodology: Developed classification and clustering models (e.g. AdaBoost, t-SNE). Found previously unknown patterns.

EDUCATION

MASTER IN QUANTITATIVE FINANCE ETH ZURICH | GPA 5.76/6: SUMMA CUM LAUDE

ACHIEVED AS WORKING STUDENT AT UBS AG

09/18 - 04/22 | Zurich, Switzerland

Ranked 4th best Master in Quant Finance (2021) | [Link](#)

MASTER IN MATHEMATICS UNIVERSITY OF MILAN | 110/110: SUMMA CUM LAUDE

10/15 - 05/18 | Milan, Italy

BACHELOR IN MATHEMATICS UNIVERSITY OF MILAN | 110/110: SUMMA CUM LAUDE

09/12 - 10/15 | Milan, Italy

SELECTED PUBLICATIONS

AN SDE FOR MODELING SAM: THEORY AND INSIGHTS | [LINK](#) | ICML 2023

E. MONZIO COMPAGNONI*, L. BIGGIO, A. ORVIETO, F. PROSKE, H. KERSTING, A. LUCCHI

ON THE EFFECTIVENESS OF RANDOMIZED SIGNATURES AS RESERVOIR FOR LEARNING ROUGH DYNAMICS | [LINK](#) | IEEE IJCNN 2023

E. MONZIO COMPAGNONI*, A. SCAMPICCHIO, L. BIGGIO, A. ORVIETO, T. HOFMANN, J. TEICHMANN

RISK SHARING WITH DEEP NEURAL NETWORKS | [LINK](#) | J. QUANT FINANCE

E. MONZIO COMPAGNONI*, M. BURZONI*, A. DOLDI*

SKILLS

PROGRAMMING

- Python (Advanced)
- SAS (Basic)
- SQL (Basic)
- R (Basic)
- MATLAB (Basic)

MACHINE LEARNING

- JAX • TensorFlow
- PyTorch • Time Series
- (Stochastic) Optimization
- Reservoir Computing
- Transformers
- LLMs
- Diffusion Models

MATHEMATICS

- Stochastic Calculus • PDEs
- Rough Path Theory
- Advanced Probability
- Real & Functional Analysis
- Mathematical Finance
- Quantum Mechanics

STATISTICS

- Data Cleaning • Imputation
- Inference • Estimation
- Hypothesis Testing
- Multivariate Analysis

CERTIFICATES

DEEP LEARNING SPECIALIZATION

COURSERA | [LINK](#)

INTERESTS

- Cooking • Fitness • Gym
- Strategy Board Games
- Gardening • Collectibles

LANGUAGES

- Italian (Mother Tongue)
- English (IELTS Academic: C1)
- German (A1.2)
- Lombard (Mother Tongue)