Francesco Gili

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PROFILE

I am a mathematician currently doing a PhD in mathematical statistics under the supervision of Prof. dr. Aad van der Vaart and Prof. dr. Geurt Jongbloed at the TU Delft.

WORK EXPERIENCE

Research internship CWI,   Jan 2022 - Aug 2022,   Amsterdam.

The research project was embedded in the Machine Learning group and the focus was on the investigation of martingale methods for sequential analysis and learning.

Teaching assistant UvA - VU,   Sep 2022 - Aug 2022,   Amsterdam.

I have been teaching assistant for master courses such as Stochastic Processes for Finance and Stochastic Integration (Mastermath - national course). Moreover, I have been Tutor for first year students.

Energy analyst internship,   Jul 2021 - Sep 2022,   Amsterdam.

Energy companies may have a low number of measurements in the lower part of the grid; during this research internship, we evaluated models for the estimation of consumption profiles, with the objective of forecasting.

Tutor UniTo,   Nov 2018 - Jun 2019,   Turin.

I was lecturer in the Project Digital Math Training and I would teach students how to use the multi-paradigm programming language Maple in order to solve mathematical problems.

EDUCATION

Ph.D. in Mathematical Statistics,
Sep 2022 - current

M.Sc. Stochastics & Financial Mathematics, Mathematics,   grade: Cum Laude.
Sep 2020 - Aug 2022

B.Sc. Mathematics for Finance and Insurance, Mathematics,   grade: Cum Laude.
Sep 2017 - Aug 2020

SKILLS

Statistics: frequentist and bayesian nonparametric estimation, inverse problems, asymptotic statistics, causality and graphical models, statistical testing, optional stopping.

Probability: measure theoretic probability, stochastic calculus, markov chains, stochastic processes, uncertainty quantification, queueing theory.

Machine Learning: reinforcement learning, supervised and unsupervised learning, deep learning.

Mathematics: analysis, functional analysis, linear algebra, geometry, operational research, actuarial mathematics, financial math, interest rate models, portfolio theory.

Programming: Python, R-studio, MQL-4, Matlab, LaTeX markdown.

Python: numpy, scipy, pandas, seaborn, matplotlib, sklearn, tkinter, jax, pytorch, tensorflow.

LANGUAGES

Italian (native), English (C1 level certified), Spanish (C1 level certified), Dutch (B1-A2, A2 certified).

Driving license: B.