Davide Marchini

Born in Fidenza (Italy) on October 7^{th}, 1994.
Italian citizen.
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Summary

Quantitative researcher professional with focus on Machine Learning, systematic investing and α-design. Experienced in macroeconomic dynamics of emerging and frontier markets. Research interests at the intersection of memory augmented neural architectures, self-learning algorithms and time series modelling.

Experience

Winton Capital — **London, United Kingdom**
Quantitative Researcher — 09/2019 - *present*
Intern (Zurich, Switzerland) — 02/2019 - 05/2019
Research and development of systematic investment strategies.

Independent Research
Development of algorithmic investment strategies — 06/2018 - *present*
Research on Memory Augmented Neural Architectures, Self-Learning Algorithms, Adversarial Inputs, Generative Models, (Differentiable) Performance Metrics. Implementation of an advanced backtesting engine (order book reconstruction, simulations of multi-agent and multi-asset markets) and design of proprietary libraries for performance and risk analytics, transaction cost analysis and visualization.

Vontobel Asset Management — **Zurich, Switzerland**
Portfolio and Risk Analyst — 12/2017 - 01/2019
Part-time position (working student 40-60%) in the Portfolio and Risk Analytics Team. Responsibilities over risk analysis, process automation and data reconciliation. Development and maintenance of tools in R (Sweave, caret, ggplot2), SQL, Excel VBA, Bloomberg and Morningstar.

University of Zurich - Department of Banking and Finance — **Zurich, Switzerland**
(Co-) Portfolio Manager, AuM €2Mn — 02/2017 - 05/2018
Member of the Macro Group in the Portfolio Management Program (PMP), an academic collaboration between University of Zurich, ZZ Vermögensberatung (Schweiz) AG and P&K Pühringer Gemeinnützigen Stiftung. Management of an Emerging and Frontier Markets portfolio focused on Fixed Income and FX with responsibilities over market research, model development, trading and periodic presentations.

Education

ETH Zurich and University of Zurich — **Zurich, Switzerland**
Master of Science in Quantitative Finance, CGPA: 5.6/6.0 — 2016 - 2019
M.Sc. Thesis: *"Consistent Scenario Generation of Financial Time Series"* - Supervisor: Prof. Dr. Erich Walter Farkas.
Relevant modules: Computational finance, Quantitative portfolio management, Machine and Deep Learning, Financial Engineering.
Semester projects: ML techniques in FX Instruments, Optimal shrinkage of the covariance matrix, Ranked portfolio optimization.
Associations: Zurich Quantitative Finance Alumni (ZQFA). **Grants**: *LGT Capital Partners* Scholarship (Fr.1500).

Politecnico di Milano — **Milan, Italy**
Bachelor of Science in Mathematical Engineering — 2013 - 2016
B.Sc. Thesis: *"A mathematical model for crime diffusion"* - Supervisor: Prof. Maurizio Verri.
Relevant modules: Mathematical Analysis and PDEs, Numerical Analysis, Computer Science, Probability Theory, Statistical Inference.
Exchange semester: Universidad Autonoma de Madrid (UAM) (*Real and Functional Analysis*, *Operations Research*). 09/2015 - 01/2016
Associations: Assiociazione Ingegneri Matematici (AIM) **Grants**: INVALSI 2013 (€500), Erasmus+ 2015 (€2500)

Interests and Skills

Languages: Italian (native), English and Spanish (fluent), French (conversational).
Research interests: Memory Augmented Neural Architectures, Self-Learning Algorithms, Time Series Modelling.
Programming proficiency: Python (`pandas`, `pytorch`, `sklearn`), R, Matlab, C/C++, SQL, MS Office (incl. Excel VBA), LaTeX.
Certificates: Bloomberg Markets Concepts (BMC) for Bloomberg Terminal.
High School: Math Olympiad; Summer Schools at Ducati Motors, SNS Pisa, University of Parma, Bocconi University.
***Soft* skills**: Capable team player, trained to work under pressure and deadlines, precise, detail observer, *fast learner*.

Further details and references available upon request.