ALEXANDER MASCOLO

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CURRENT

MRes Computer Science 2024 – 2025
University of Edinburgh EDINBURGH 🇬🇧

- Fully funded, research on efficient database/tensor computations.
- Open-sourced a compiled query engine for data science (⚙ sdql).

EXPERIENCE

Research Engineer 2021 – 2023
Tably LONDON 🇬🇧

- Applied R&D for large-scale distributed stream processing.
- Implemented conflict-free replicated data types (⚙ otto).

Research Engineer 2019 – 2020
Gyana LONDON 🇬🇧

- Greenfield development of high-performance analytics libraries.
- Funding by top VC investors, including the co-founder of Twitter.

Quantitative Developer 2017 – 2019
Macquarie Group LONDON 🇬🇧

- Strategist role in Quantitative Investment Strategies (QIS).
- Coded up strategies and improved the backtesting engine.

Quantitative Developer 2015 – 2016
Macquarie Group SYDNEY 🇦🇺

- Desk analytics role aligned with Options Market Making.
- Built visualisation tools to monitor trade execution latency.

EDUCATION

BSc (Hons I) Computer Science 2011 – 2015
Australian National University CANBERRA 🇦🇺

- *Thesis:* "Applications of Social Choice and Game Theory to Decision Theory".
- *Awards:* National Merit Scholarship, Computer Science and Mathematics Prize.
- *Teaching Assistant:* Logic, Formal Methods, Information Theory.

Summer School in Logic and Formal Epistemology 2013
Carnegie Mellon University PITTSBURGH 🇺🇸

- Fully funded, seminars on statistical machine learning.

PAPERS

Amir Shaikhha, Mathieu Huot, Shideh Hashemian, Amirali Kaboli, Alex Mascolo, Milos Nikolic, Jaclyn Smith, and Dan Olteanu. A semi-ring dictionary query language for data science. *Journal of Functional Programming*, 2025. forthcoming

CODING

Python ●●●●◐ · Rust ●●●○○ · Scala ●●○○○ · C++ ●○○○○

CITIZENSHIP

🇦🇺 Australian 🇬🇧 British 🇮🇹 Italian (triple) · eligible for 🇺🇸 US E-3 visa (H-1B not required).