

ALEXANDER MASCOLO

🌐 <https://www.sparsity.ai/>

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PROFILE Strong coding and analytical skills · 8+ years experience at startups and trading desks.

CURRENT *MSc (by Research) Computer Science* 2024 – 2025
University of Edinburgh EDINBURGH 🇬🇧

- Fully funded, systems research on compilers for data science.
- Open-sourced a query engine with code generation (🐙 [sdql](#)).

EXPERIENCE *Research Engineer* 2021 – 2023
Tably LONDON 🇬🇧

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

Software Engineer 2019 – 2020
Gyana LONDON 🇬🇧

- Greenfield development of high-performance analytics libraries.
- Funding by top VC investors, including the 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 🇺🇸

- Interdisciplinary thesis on computer science and economic theory.
- National Merit Scholar (top 0.35%), joint prize with mathematics.
- Teaching assistant for Logic, Formal Methods, Information Theory.

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

- Fully funded, seminars on statistical machine learning.

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

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