

ALEXANDER MASCOLO

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CURRENT	<i>MRes Machine Learning Systems</i> University of Edinburgh <ul style="list-style-type: none">• Research on probabilistic programming and sparse tensor algebra.• Open-sourced a compiled query engine for data science (🐙 sdql).	2024 – 2025 EDINBURGH, UK
EXPERIENCE	<i>Research Engineer</i> Tably <ul style="list-style-type: none">• Applied R&D for large-scale distributed stream processing.• Implemented conflict-free replicated data types (🐙 otto).	2021 – 2023 LONDON, UK
	<i>Research Engineer</i> Gyana <ul style="list-style-type: none">• Greenfield development of high-performance analytics libraries.• Funding by top VC investors, including co-founder of Twitter.	2019 – 2020 LONDON, UK
	<i>Quantitative Developer</i> Macquarie Group <ul style="list-style-type: none">• Strategist role in Quantitative Investment Strategies (QIS).• Coded up strategies and improved the backtesting engine.	2017 – 2019 LONDON, UK
	<i>Quantitative Developer</i> Macquarie Group <ul style="list-style-type: none">• Desk analytics role aligned with Options Market Making.• Built visualisation tools to monitor trade execution latency.	2015 – 2016 SYDNEY, AU
EDUCATION	<i>BSc (Hons I) Computer Science</i> Australian National University <ul style="list-style-type: none">• <i>Thesis</i>: “Applications of Social Choice and Game Theory to Decision Theory”.• <i>Awards</i>: Computer Science and Mathematics Prize, National Merit Scholarship.• <i>Teaching Assistant</i>: Logic, Formal Methods, Information Theory.	2011 – 2015 CANBERRA, AU
	<i>Summer School in Logic and Formal Epistemology</i> Carnegie Mellon University <ul style="list-style-type: none">• Seminars on statistical machine learning.	2013 PITTSBURGH, US
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. <i>Journal of Functional Programming</i> , 2024. forthcoming	
CODING	Python ●●●●● · Rust ●●●○○ · Scala ●●○○○ · C++ ●○○○○	
CITIZENSHIP	Australian, British, Italian citizen · eligible for US E-3 visa (H-1B not required).	