



Edoardo Pirovano

SENIOR SOFTWARE ENGINEER · PHD · BORN 19 MAY 1995 · BRITISH/ITALIAN DUAL CITIZEN

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PhD in AI safety and 5+ years of industry experience building developer tools for verification and testing.

Experience

Meticulous

London, UK

FOUNDING ENGINEER

January 2024 – Present

- Joined as employee number #3. Worked on everything from engineering/infrastructure to sales/marketing.
- Contributed to the product, turning it from an early version into something customers could rely on at scale.
- Helped to grow the engineering team from 3 to 10+ engineers, including hiring and onboarding new engineers.
- Led the implementation of our first seven-figure contract.

Lacework

London, UK

SOFTWARE ENGINEER (IC5)

November 2023 – December 2023

SOFTWARE ENGINEER (IC4)

December 2022 – November 2023

- Part of the Code Security team, working on developing a new product offering for analysing the security of code via static analysis.
- Primarily working on the analysis platform, including processing and ingestion of results and a service caching parts of the analysis.

GitHub

Remote (in London, UK)

SOFTWARE ENGINEER III

March 2021 – December 2022

- Part of the CodeQL Foundations team, responsible for the query language and evaluation engine that powers GitHub's Code Scanning.
- Primarily working on novel techniques to improve the performance of our static analysis, as well as feature improvements to our tooling.

Imperial College London

London, UK

GRADUATE TEACHING ASSISTANT

October 2017 – December 2020

- Teaching assistant for a number of courses including Logic, Modal Logic, Models of Computation and Systems Verification.
- Responsibilities include marking coursework, helping students during classes and lab sessions, and invigilating during exams.

Semmlle

Oxford, UK

RESEARCH ENGINEER (INTERN)

March 2019 – June 2019

RESEARCH ENGINEER (INTERN)

June 2016 – September 2016

- Worked over two internships in the Platform team on various scalability improvements to the evaluation of QL, the querying language designed by Semmlle to analyse code and locate bugs and security vulnerabilities.

Amazon Video

London, UK

SOFTWARE DEVELOPMENT INTERN

July 2015 – October 2015

- Developed a system to record and display calls to the services that track customer's ownership of a video in order to aid debugging of issues.

Education

Imperial College London

London, UK

PHD IN COMPUTING

October 2017 – February 2021

- Studying under the supervision of Prof. Alessio Lomuscio in the Verification of Autonomous Systems research group.
- Carrying out research on checking the behaviour of AI systems using techniques such as probabilistic model checking and SMT solving.
- Co-authored nine peer-reviewed publications in top AI conferences and journals.

University of Oxford

Oxford, UK

MASTER'S IN MATHEMATICS AND COMPUTER SCIENCE

October 2013 – June 2017

- First Class Honours in both Bachelor's part (Year 1-3) and Master's part (Year 4) of the degree.
- Awarded Stephen Corcoran Prize in Mathematics after first year, and a college nominated scholarship for academic work each year.
- Selected modules (maximum grade 100): Models of Computation (96); Computer Security (90); Imperative Programming (87); Principles of Programming Languages (87); Concurrency (86); Automata, Logic & Games (85); Compilers (84); Intelligent Systems (84); Lambda Calculus & Types (83); Categories, Proofs & Processes (83); Concurrent Algorithms & Data Structures (83); Concurrent Programming (82).

Mougins School

Mougins, France

INTERNATIONAL SCHOOL FOLLOWING A UK CURRICULUM

September 2001 – June 2013

- A-Levels (maximum grade A*): Mathematics (A*); Physics (A*); Chemistry (A*); Biology (A).
- AS-Levels (maximum grade A): All subjects continued to A-Level plus Further Mathematics (A); Computing (A); French (A); Italian (A); History (B).
- Awarded a Council of British International Schools achievement award.

Skills

Programming	Java, Rust, JavaScript/TypeScript, Go, Python, SQL
Technical	GitHub Actions, Git, AWS, Kubernetes, Helm, TeX , Unix/Linux
Soft skills	Interviewing, Sales, Marketing, Product Management, Customer Support, Technical Writing
Languages	English (fluent), Italian (fluent), French (advanced), Spanish (intermediate), Japanese (elementary)
Qualifications	UK Driving License (car and motorcycle), EASA Private Pilot's License, PADI Advanced Open Water Diver

Publications

In all cases, authors are ordered alphabetically rather than by their contribution to the work as this was the convention in my research group.

A Counter Abstraction Technique for Verifying Properties of Probabilistic Swarm Systems	Artificial Intelligence
ALESSIO LOMUSCIO, EDOARDO PIROVANO	January 2022
Parameterised Model Checking of Probabilistic Multi-Agent Systems	PhD Thesis
EDOARDO PIROVANO (SUPERVISED BY ALESSIO LOMUSCIO)	June 2021
Verifying Fault-Tolerance in Probabilistic Swarm Systems	IJCAI 2020
ALESSIO LOMUSCIO, EDOARDO PIROVANO	January 2021
Parameterised Verification of Strategic Properties in Probabilistic Multi-Agent Systems	AAMAS 2020
ALESSIO LOMUSCIO, EDOARDO PIROVANO	May 2020
Verification of RNN-Based Neural Agent-Environment Systems	AAAI 2019
MICHAEL E. AKINTUNDE, ANDREEA KEVORCHIAN, ALESSIO LOMUSCIO, EDOARDO PIROVANO	July 2019
Formal Verification of Open Multi-Agent Systems	AAMAS 2019
PANAGIOTIS KOUVAROS, ALESSIO LOMUSCIO, EDOARDO PIROVANO, HASHAN PUNCHIHEWA	May 2019
A Counter Abstraction Technique for the Verification of Probabilistic Swarm Systems	AAMAS 2019
ALESSIO LOMUSCIO, EDOARDO PIROVANO	May 2019
Reachability Analysis for Neural Agent-Environment Systems	KR 2018
MICHAEL AKINTUNDE, ALESSIO LOMUSCIO, LALIT MAGANTI, EDOARDO PIROVANO	November 2018
Symbolic Synthesis of Fault-Tolerance Ratios in Parameterised Multi-Agent Systems	IJCAI 2018
PANAGIOTIS KOUVAROS, ALESSIO LOMUSCIO, EDOARDO PIROVANO	July 2018
Verifying Emergence of Bounded Time Properties in Probabilistic Swarm Systems	IJCAI 2018
ALESSIO LOMUSCIO, EDOARDO PIROVANO	July 2018
Applications of Reinforcement Learning to Medical Image Segmentation	Master's Thesis
EDOARDO PIROVANO (SUPERVISED BY IRINA VOICULESCU)	June 2017

Other activities

Various Conferences (AAAI, HSCC, and ICCSW)	UK and USA
REVIEWER & COMMITTEE MEMBER	June 2018 – January 2021
Imperial College ACM Chapter	London, UK
FINANCE OFFICER	June 2018 – June 2019
Wadham College Ball Committee	Oxford, UK
WEB DEVELOPER & SERVER ADMINISTRATOR	October 2015 – October 2016
Wadham College Boat Club	Oxford, UK
ROWING VICE CAPTAIN	October 2015 – June 2016
Oxford University Chemistry Society	Oxford, UK
IT OFFICER	October 2014 – April 2015
Mougins School	Mougins, France
THEATRE TECHNICIAN	October 2010 – July 2013
StackOverflow	Remote (in Mougins, France)
STACKOVERFLOW VOLUNTEER	August 2010 – January 2012
Wikipedia	Remote (in Mougins, France)
TECHNICAL VOLUNTEER	November 2009 – November 2011