



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

FOUNDING ENGINEER

- 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.

London, UK

January 2024 – Present

Lacework

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.

London, UK

GitHub

SOFTWARE ENGINEER III

Remote (in London, UK)

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.

London, UK

Imperial College London

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.

Semmle

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 Semmle 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, L ^A T _E X, 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, authours 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

ALESSIO LOMUSCIO, EDOARDO PIROVANO

Artificial Intelligence

January 2022

Parameterised Model Checking of Probabilistic Multi-Agent Systems

EDOARDO PIROVANO (SUPERVISED BY ALESSIO LOMUSCIO)

PhD Thesis

June 2021

Verifying Fault-Tolerance in Probabilistic Swarm Systems

ALESSIO LOMUSCIO, EDOARDO PIROVANO

IJCAI 2020

January 2021

Parameterised Verification of Strategic Properties in Probabilistic Multi-Agent Systems

ALESSIO LOMUSCIO, EDOARDO PIROVANO

AAMAS 2020

May 2020

Verification of RNN-Based Neural Agent-Environment Systems

MICHAEL E. AKINTUNDE, ANDREEA KEVORCHIAN, ALESSIO LOMUSCIO, EDOARDO PIROVANO

AAAI 2019

July 2019

Formal Verification of Open Multi-Agent Systems

PANAGIOTIS KOUVAROS, ALESSIO LOMUSCIO, EDOARDO PIROVANO, HASHAN PUNCHIHAWA

AAMAS 2019

May 2019

Reachability Analysis for Neural Agent-Environment Systems

MICHAEL AKINTUNDE, ALESSIO LOMUSCIO, LALIT MAGANTI, EDOARDO PIROVANO

KR 2018

November 2018

Symbolic Synthesis of Fault-Tolerance Ratios in Parameterised Multi-Agent Systems

PANAGIOTIS KOUVAROS, ALESSIO LOMUSCIO, EDOARDO PIROVANO

IJCAI 2018

July 2018

Verifying Emergence of Bounded Time Properties in Probabilistic Swarm Systems

ALESSIO LOMUSCIO, EDOARDO PIROVANO

IJCAI 2018

July 2018

Applications of Reinforcement Learning to Medical Image Segmentation

EDOARDO PIROVANO (SUPERVISED BY IRINA VOICULESCU)

Master's Thesis

June 2017

Other activities

Various Conferences (AAAI, HSCC, and ICCSW)

REVIEWER & COMMITTEE MEMBER

UK and USA

June 2018 – January 2021

Imperial College ACM Chapter

FINANCE OFFICER

London, UK

June 2018 – June 2019

Wadham College Ball Committee

WEB DEVELOPER & SERVER ADMINISTRATOR

Oxford, UK

October 2015 – October 2016

Wadham College Boat Club

ROWING VICE CAPTAIN

Oxford, UK

October 2015 – June 2016

Oxford University Chemistry Society

IT OFFICER

Oxford, UK

October 2014 – April 2015

Mougins School

THEATRE TECHNICIAN

Mougins, France

October 2010 – July 2013

StackOverflow

STACKOVERFLOW VOLUNTEER

Remote (in Mougins, France)

August 2010 – January 2012

Wikipedia

TECHNICAL VOLUNTEER

Remote (in Mougins, France)

November 2009 – November 2011