

# Mario Sangiorgio

SENIOR SOFTWARE ENGINEER · PHD

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*I'm a senior software engineer with 8 years of experience designing, building and operating large-scale systems. I specialise in distributed systems and low-latency systems. I am also interested in programming languages and developer tools. I am experienced working in distributed teams and looking for a remote position.*

## Experience

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### Apple

London, United Kingdom

SENIOR SOFTWARE ENGINEER · SWIFT, KUBERNETES

November 2018 – Present

- Designed and built the FaaS compute platform supporting large-scale iCloud services including (among others) iCloud Photos Library, iCloud data security, Apple Fitness+, Notes
- Helped teams to onboard on the platform and improved tools to make the process as self-service as possible
- Migrated services to the internal Kubernetes clusters
- Collaborated with the SRE team to define SLOs and ensure correct operation of production systems
- Contributed to server-side Swift in both internal and open source projects
- Often been a project Directly Responsible Individual, mentored new joiners and introduced partner teams to the system architecture
- Worked effectively in a team distributed across several locations in Europe and the United States

### G-Research

London, United Kingdom

SOFTWARE DEVELOPER · C#, F#, C++

January 2014 – November 2018

- Built real-time and low-latency services and their supporting infrastructure
- Developed user interfaces used to control/monitor live trading and to analyse the behaviour of the trading strategies
- Turned a monolith into a set of (micro) services increasing reliability and maintainability of the whole system
- Contributed to the adoption of continuous delivery, increased the test coverage and replaced brittle tests with more reliable ones
- Led project work and mentored several new engineers as they joined the team

### Politecnico di Milano

Milano, Italy

TEACHING ASSISTANT · SOFTWARE ENGINEERING UNDERGRADUATE COURSE · JAVA

Spring 2011, spring 2012, spring 2013

- Taught part of the lectures of the course, organised the laboratory assignments and tutored the students on their project work

## Education

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### Politecnico di Milano

Milano Italy

PHD IN COMPUTER SCIENCE AND ENGINEERING · GRADUATED WITH MERIT

January 2011 – December 2013

- Major research topic: static and dynamic program analysis, modelling software behaviour and specification inference
- Minor research topic: data mining and social network analysis applied to scientific literature
- Published papers in international conferences and journals

### Massachusetts Institute of Technology

Boston, MA, United States

VISITING PHD STUDENT

September 2012 – December 2012

- Contributed to a research project exploring data-driven approaches to program synthesis

### University of Illinois at Chicago

Chicago, IL, United States

MASTER OF SCIENCE IN COMPUTER SCIENCE · GRADE POINT AVERAGE: 3.72/4.00

March 2009 – May 2011

- Double degree program

### Politecnico di Milano

Milano, Italy

BACHELOR AND MASTER OF SCIENCE IN COMPUTER ENGINEERING · FINAL MARK: 110/110 SUMMA CUM LAUDE

October 2005 – December 2010

- Attended Alta Scuola Politecnica multi-disciplinary courses

## Skills

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### Programming

Swift, C#, Java, C++, F#, Rust, Elixir, Python, Go, JavaScript, Scala

### Expertise

Software design, backend development, distributed systems, program analysis, data mining and machine learning

### Certifications

Certified Kubernetes Application Developer (2020)

### Languages

Italian, English