

Marco Micera

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Cloud Engineer based in Berlin, Germany, into cloud architecture, microservices, CI/CD, and open source.

Technologies

Most experienced with Kubernetes, Docker (Compose), GitHub Actions, Java, Scala, Bash, Linux, RESTful API (OpenAPI/Swagger), git
Some experience with GCP, Azure, Terraform, Jenkins, Golang, C/C++, Python, relational & graph DBs (e.g., PostgreSQL, MongoDB, Neo4j)
Dabbled in AWS, Prometheus, Grafana, Spring Boot, JavaScript, jQuery, Node.js, Java Android, Kotlin, J2EE, PHP

Work Experience

Cloud Infrastructure Engineer

Berlin, Germany

ENDOCODE AG

Jul 2020 – Present

- Consolidating and maintaining multi-provider (GCP, AWS, & Azure) Terraform code for a global health company
- Developed an ad-hoc license detector in Java for the EU-funded project [Fasten](#), integrated into their pipeline (Kafka on Kubernetes on-premise)
 - 🔧 Reduced Docker build times from 104 to 22 seconds for all dev teams
- Partially migrated [Linux Foundation-hosted](#) FOSS compliance tool [Quartermaster](#) to microservices, moved to message queuing
 - 🔧 Parallelized and accelerated the development process by allowing a team of 3 developers to selectively run parts of the pipeline

Research Assistant

Darmstadt, Germany

UNIVERSITY OF LUGANO

Apr 2019 – Jul 2019

- Implemented a custom flow-based cluster scheduler aware of network resources and composites
- Collaborated in (i) extending a [simulator](#) built around the scheduler in Scala, and (ii) refining the solver's cost model
 - 🔧 The simulator featured in the 2021 ASPLOS paper "[Switches for HIRE: Resource Scheduling for Data Center In-Network Computing](#)"

Web Developer

Pisa, Italy

UNIVERSITY OF PISA

Sep 2016 – Aug 2017

- Contributed to the development of the School of Engineering website [ing.unipi.it](#) of the University of Pisa ([credits](#)) as a part-time worker
- Improved its usability by (i) designing a new website navigation bar, and (ii) adding infographics to help students find classrooms
 - 🔧 The infographics were selected and implemented on campus

Blog Posts

2021 [Java containerization for modular PF4j applications](#), Endocode AG

Berlin, Germany

Personal Projects

kubemarks – [github.com/marcomicera/kubemarks](#) (+ [PerfKitBenchmarker](#) submod.)

Turin, Italy

POLYTECHNIC UNIVERSITY OF TURIN

Sep 2019 – Feb 2020

- Benchmarking tool based on Google Cloud Platform's PerfKit Benchmarker that can periodically run benchmarks as CronJobs on Kubernetes
 - 🔧 The tool was assessed by Polytechnic University of Turin and incorporated into the research of NetGroup
- Results can be exposed to a Prometheus Pushgateway thanks to its Python client, allowing visual monitoring with Grafana

followifier – [github.com/marcomicera/followifier](#)

Turin, Italy

POLYTECHNIC UNIVERSITY OF TURIN

Apr 2018 – Jan 2020

- Tracking system that exploits Wi-Fi Probe Request frames sent by ESP32 boards placed in the corners of a room to detect and monitor devices
- Implemented ESP32 boards' firmware in C and main server's logic in Boost C++

Education

M.Sc. in Computer Engineering

Turin, Italy, and Darmstadt, Germany

POLYTECHNIC UNIVERSITY OF TURIN

Mar 2017 – Mar 2020

- Relevant courses: cloud computing, computer network technologies and services, distributed programming, software engineering ([list](#))
- Thesis at the Technical University of Darmstadt, Germany, titled "[Data center resource management for in-network processing](#)"

B.Sc. in Computer Engineering

Pisa, Italy

UNIVERSITY OF PISA

Oct 2013 – Feb 2017

Skills & Languages

- 🔧 Strong advocate of version control, issue tracking systems, detailed documentation, code modularity, and testing
- 🔧 Knowledge of UNIX/Linux, familiarity with TCP/IP, network programming, and multi-threading programming
- 🔧 Good relational and organizational skills thanks to the time spent with the Erasmus Student Network in Pisa, Turin, and Darmstadt
- 🔧 **Italian**, Native (C2) — **English**, Fluent (C1, IELTS 7.5) — **German**, Basic (Goethe-Institut A2.2) — **Spanish**, Basic (A2)