

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, Terraform, Jenkins, Golang, Prometheus, C/C++, Python, HTML/CSS, relational and graph DBs
Dabbled in Azure, AWS, Grafana, Spring Boot, JavaScript, jQuery, Node.js, Java Android, 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)
 - 🔧 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)