

# MARCO TINACCI

## Senior Software Developer

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London, UK  
marcotinacci



## EXPERIENCE

### Lead Software Engineer

#### Nationwide Building Society

December 2018 – Present

London, UK

- Responsible for DevOps and microservice infrastructure in Kubernetes, Terraform, and AWS
- Developed backend, infrastructure, and deployment cycle of the green field mobile application hearth.co.uk for first-time home-buyers
- Led and developed green field MVPs, like thelandlordworks.co.uk
- Designed and implemented an intellectual property algorithm to sort properties in London by best commute time
- Hire selection and mentoring of new developers

Terraform AWS Kubernetes GitLab CI Golang  
Neo4j ArgoCD Datadog Helm MongoDB

### Full Stack Developer

#### Ems.ai

May 2018 – November 2018

London, UK

- Managed the backend infrastructure, and worked with both NoSQL and SQL databases
- Designed and implemented an engine to compute commute times on TFL data
- Implemented ETL pipelines, web scrapers, and image classifiers
- Implemented Rest APIs in coordination with the Vue frontend, and documented with OpenAPI and Swagger

IBM Cloud Watson AI Machine Learning Rest API  
Docker Python NetworkX Flask OpenAPI

### Backend Developer

#### Witapp SRL

October 2017 – April 2018

Florence, Italy

- Responsible for the backend infrastructure of multiple projects on different cloud providers
- Implemented and maintained a microservice infrastructure on Kubernetes
- Mentored and managed a team of developers

GCloud AWS Docker Rest API Swagger  
Kubernetes RabbitMQ PostgreSQL React Python

## ABOUT ME

Computer scientist with 7 years of practical experience across software engineering, backend development, and DevOps. Always eager to learn and to improve my skills, my academic background in computer science gives me strong foundations to have a high level understanding of software products, and to be able to design and implement new intellectual property.

## EDUCATION

### M.Sc. in Computer Science

#### Università degli Studi di Firenze

December 2009 – December 2012

GPA: 4.0

### B.Sc. in Computer Science

#### Università degli Studi di Firenze

December 2005 – December 2009

GPA: 4.0

## CERTIFICATIONS

✓ Deep Learning Specialization  
Coursera – February 2021

✓ Sequence Models  
Coursera – February 2021

✓ Convolutional Neural Networks  
Coursera – January 2021

✓ Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization  
Coursera – January 2021

✓ Neural Networks and Deep Learning  
Coursera – January 2021

✓ Structuring Machine Learning Projects  
Coursera – January 2021

## LANGUAGES

English – Fluent

Italian – Native

## Backend Developer

### Balzo

📅 September 2016 – September 2017 📍 Florence, Italy

- Responsible for deployment and integration of backend application over different cloud providers
- Lead backend developer in a team dedicated to rapid prototyping and MVPs
- Continuous communication with my colleagues to align and agree on REST APIs design for mobile applications

AWS GCloud Heroku Flask Django Kubernetes

Python PostgreSQL PHP Codelgniter

## Doctoral Research Assistant

### IMT School For Advanced Studies Lucca

📅 February 2013 – August 2016 📍 Lucca, Italy

- Research on model checking algorithms and formal methods as part of my PhD thesis
- My studies involved game theory, model predictive controls, optimization algorithms, cloud computing, distributed and parallel programming
- Developed compilers to implement my own programming languages using Xtext and Eclipse in Java
- Analysed banks lending networks with NetworkX in python
- Joined the MOVES team as visiting PhD student at the RWTH Aachen University, Germany
- Presented at MOVEP 2014: 11th Summer School on Modelling and Verification of Parallel Processes, École Centrale de Nantes, France
- Participated to AWASS 2013: 2nd Awareness Summer School

Model Checking Formal Methods Network Theory

Game Theory Python Java Matlab Optimization

## SKILLS

### Computer Science

Game Theory Model Checking  
Optimization Machine Learning  
Artificial Intelligence Formal Methods

### Programming Languages

Python Golang Java  
C++ Bash Matlab

### Frameworks

Django Flask Golang Echo

### Libraries

React NetworkX Xtext

### Web APIs

REST GraphQL

### Operative Systems

Linux Windows MacOS

### DevOps

Terraform Kubernetes Helm AWS  
Docker Git GCloud Heroku

### CI/CD

ArgoCD Jenkins Github Actions  
GitLab CI Codeship

### Databases

MySQL PostgreSQL Neo4j  
Microsoft SQL Server MongoDB  
CouchDB Redis

## INTERESTS

🎬 Cinema

📷 Photography

🎲 Boardgames

🎮 Video games

🔗 Coding

☕ Coffee