



Marco Andronaco

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GitHub: <https://github.com/birabittoh>

ABOUT ME

I like tinkering with software and new frameworks and I'm always open to new ideas. In my spare time, I either write free software, play videogames or exercise at the gym. I also like writing about FOSS on my personal blog and customizing my operating system.

WORK EXPERIENCE

APR 2017 – JAN 2019 Acireale (CT), Italy

PRIVATE MATH TUTOR FREELANCER

JAN 2019 – JUN 2019 Catania (CT), Italy

PWA DEVELOPER FACTO S.R.L.

Progressive WebApp development on the WordPress platform

8 MAR 2023 – CURRENT Ivrea (TO), Italy

IOT SOLUTION DESIGNER OLIVETTI S.P.A.

- Architectural analysis for IoT solutions
- Big Data maintenance (HDFS)
- Automation via Python scripting
- Front-end development (Angular)
- Back-end API development (NestJS, Go)
- Relational database optimization (PostgreSQL, CrateDB)
- Time-series database optimization (InfluxDB, TimescaleDB)
- Data flow orchestration (NiFi)
- Container orchestration (Docker Swarm, Kubernetes)

EDUCATION AND TRAINING

2011 – 2016 Acireale (CT), Italy

HIGH SCHOOL DIPLOMA Liceo Scientifico Archimede

Address Via Ludovico Ariosto, 37, 95024, Acireale (CT), Italy | **Website** <https://www.liceoarchimede.edu.it> | **Final grade** 88/100 |

Level in EQF EQF level 4

3 OCT 2016 – 13 JUN 2022 Catania (CT), Italy

COMPUTER ENGINEERING DEGREE University of Catania

Address Viale Andrea Doria, 6, 95125, Catania (CT), Italy | **Website** <https://www.dieei.unict.it/courses/l-8-inf> | **Final grade** 98/110 |

Level in EQF EQF level 6 | **Thesis** Building Predictive Maintenance Applications using the Microsoft Azure platform

MAR 2023 – MAR 2025 Turin, Italy

MASTER'S DEGREE IN SMART PRODUCT DESIGN 4.0 Polytechnic University of Turin

Website <https://www.polito.it/> | **Final grade** 110 Cum Laude/110 | **Level in EQF** EQF level 7 |

Thesis Data Monetization - API Smart Control Room

● LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

| | UNDERSTANDING | | SPEAKING | | WRITING |
|----------------|---------------|---------|-------------------|--------------------|---------|
| | Listening | Reading | Spoken production | Spoken interaction | |
| ENGLISH | C1 | C1 | C1 | C1 | C1 |

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● DIGITAL SKILLS

Web Development

HTML5 | Javascript, TypeScript | CSS | PostgreSQL and MariaDB | PHP | WordPress | Bootstrap | Angular 16 | Postman | RESTful api | AJAX | NestJS Framework | Hugo | Full-Stack Engineering

Programming

C# | Go | Java | MIPS Assembly | Arduino | Unity | Godot | C | Clean Code | Code Review | Object Oriented Programming (OOP) | Apache NIFI | Git/Git Flow

DevOps

Git | Docker | Kubernetes, Docker-Swarm | Microservices | GNU+Linux Operating Systems | BSD-like Operating Systems | Virtualization | Networking

Statistical Learning

R | Principal Component Analysis | Big Data Clustering | Python | Time-Series Forecasting | Deep Learning | Microsoft AzureML

Utility

LaTeX | MATLAB | Markdown

● DRIVING LICENCE

Driving Licence: B

● PROJECTS

Predictive maintenance applications

For my thesis (in Italian) I used Microsoft Azure Machine Learning to build predictive maintenance applications in two scenarios.

First, I built a model which was able to detect APS Failures in SCANIA trucks, based on a variety of sensors. Then, I studied time-series records of industrial machinery in order to train a model which could predict the probability of a particular component to fail in the following 90 days.

Link <https://birabittoh.is-a.dev/tesi.pdf>

FixYouTube

A web service that is able to generate video previews for YouTube on Telegram and other services which by default do not allow them. Three levels of cache are used to store information without filling up the server RAM. It's written in Go and uses the Invidious API to get the videos.

Links <https://github.com/birabittoh/fixyoutube-go> | <https://y.outube.duckdns.org/>

ArtBoundPanel

The administration panel for an art competition. Allows the admin to load results from a Google Spreadsheet containing references to images uploaded from Google Forms; these images can then be rotated, ordered, excluded and watermarked with custom colors, positions and opacities.

Images are cached server-side for a snappy experience, while all graphic operations are done in pure HTML5+JS. The backend is API-first and written in Go.

Link <https://github.com/birabittoh/artbound-go>

Remnants of Peak Galeer

Fully functional 3D turn based role playing game coded in C# and base Unity.

The player is able to save and load their game, use items and spells both in battle and in the overworld, gain items and gold from battles and explore two demo levels with a challenging final boss at the end.

Link <https://github.com/birabittoh/RPG>