europass

Marco Andronaco

Nationality: Italian **Date of birth:** 11 Apr 1998

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ABOUT ME

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

WORK EXPERIENCE

Private math tutor

Freelancer [Apr 2017 – Jan 2019]

City: Acireale (CT) | **Country:** Italy

PWA developer

Facto s.r.l. [Jan 2019 – Jun 2019]

City: Catania (CT) | **Country:** Italy

Progressive WebApp development on the WordPress platform

IoT Solution Designer

Olivetti S.p.A. [8 Mar 2023 – Current]

City: Ivrea (TO) | **Country:** Italy

- Architectural analysis for IoT solutions
- Big Data maintenance (HDFS)
- Automation via Python scripting
- Front-end development (Angular 16)
- Back-end API development (NestJS)
- Relational database optimization (PostgreSQL)
- Data flow orchestration (NiFi)
- Container management (Docker Swarm)

EDUCATION AND TRAINING

High School diploma

Liceo Scientifico Archimede [2011 – 2016]

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

Computer Engineering degree

University of Catania [3 Oct 2016 – 13 Jun 2022]

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

Master's degree in Smart Product Design 4.0

Polytechnic University of Turin [8 Mar 2023 – Current]

City: Turin | **Country:** Italy | **Website:** https://www.polito.it/ | **Field(s) of study:** Information and Communication Technologies: ● Software and applications development and analysis | **Level in EQF:** EQF level 7

LANGUAGE SKILLS

Mother tongue(s): Italian

Other language(s):

English

LISTENING C1 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** 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 / Post man / 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 / BSD-like Operating Systems / Bash / Virtualization / GN U+Linux Operating Systems / Networking / Linux (Command line, user level and os knowledge)

Statistical Learning

R / Principal Component Analysis / Big Data Clustering / Python / Time-Series Forecasting / Deep Learning / Micro soft AzureML

Utility

LaTeX / MATLAB / Markdown / VIM Text Editor / Visual Studio Code

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

COVID-19 risk evaluation The main goal of this project was to build a machine learning model that, given a Covid-19 patient's current symptoms, status, and medical history, was able to predict whether the patient was in high risk or not.
After some statistical analysis and basic supervised learning, I obtained a model that correctly predicts the risk status with a low amount of false negatives.

Link: https://github.com/BiRabittoh/covid-data-analysis

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 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 responsive 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

Simple Discord Music Bot A Discord Bot programmed in TypeScript making use of discord.js and play-yt. It can search and play any video from YouTube inside a Discord voice channel.

Link: https://github.com/BiRabittoh/simple-discord-music-bot

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

GroupGardenBot An extension of the game "botany", originally designed for unix-based systems, to the python-telegram-bot library.
Each user has their own plant; they can water it and see it grow over days with next to none logical computation required. Each step in plant growth is calculated based on time deltas, so that information only gets updated when someone is actually requesting it.

Link: https://github.com/BiRabittoh/groupgardenbot