

Luca Fabbian - Computer Engineer

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Software architecting / framework developing / web and Android apps



Professional experiences

Gasparini Srl - Developer, researcher

Full time job, from January to July 2024

I worked again at this company as a researcher and developed several prototypes, including an AI-based voice control system, 3D space algorithms, and a monitoring system. I improved, rewrote and migrated my thesis project from the cloud to a self-hosted solution using *Solid.js* and *PocketBase*. My work primarily involved *TypeScript*, *Python*, and *Go*.

Banca delle Terre Venete “Bank of Venetian Lands” - Developer, engineer

Two months project, spring 2024

After a company merger, the bank had duplicated software and procedures, causing inefficiency. I developed an automation tool, *bccauto*, to sync data from various sources and execute advanced macros. Working within strict security protocols and a legacy system, I used Go for its developer speed and portability. The UI was built with *Alpine.js* for easy, on-the-fly modifications.

Playnook - Frontend developer

Two months project, summer 2023

This audiobook publisher sought to use generative AI for translations, revisions, and text editing. I developed a plugin for *Magebook*, an open-source editor I created in 2019, popular in Italy. This plugin connects to the OpenAI GPT-4 API, performs intelligent queries, and integrates with the editor.

Gasparini Srl - Backend & frontend developer, researcher

Internship, from November 2022 to April 2023

Gasparini is a leader company of high-quality industrial machinery hardware, but still relies on legacy software. I investigated on a cloud migration scenario and I developed a web app able to ingest industrial drawings and turn them into machine instructions. I used *TypeScript+Svelte+Three.js+TailwindCSS* for the frontend, and *Node+Postgres+Postgraphile* for the backend. I worked with microservices, Docker, Azure and CI/CD pipelines based on Pulumi.

Witted Srl - Backend & frontend developer, software architect

Two weeks internship, summer 2020

I worked on Daphne (a project about monitoring forests with smart sensors), developing a backend from scratch with AWS, Serverless and Node. I also developed a frontend, with *JavaScript + Svelte*, to view and label data. I worked again on the Zephyrus framework: a major rewrite with ZeroMQ instead of ROS improved build time of 10000% and delay of 100000%.

Witted Srl - Software architect

Two weeks high school internship, summer 2018 + remote work afterwards

I brought to the company a framework I developed called Zephyrus, which is based on ROS and Docker. Zephyrus automates the build, run, and debug processes for distributed programs used in the company's robots. I was also involved in the making process of a Sealion ROUV (underwater drone) prototype.

Education and Awards

University of Padova - Computer Engineering, 110/110 Cum Laude

Master Degree, from October 2021 to October 2023



University of Padova - Information Engineering, 110/110 Cum Laude

Bachelor Degree, from October 2018 to September 2021

I chose the traditional University of Padova career: a bachelor degree with exams related to computer science, maths, physics, electronics and telecommunications + a master degree focused on computer science only, with a special focus on WIDE (Web Information and Data Engineering).

Bachelor Thesys: I suggested and developed Unyw, an hybrid app for running desktop Linux binaries on Android, with a brand new system to remap native GUIs into web pages.

Master Thesys: working with Gasparini Srl, a company about industrial machineries, I engineered a solution to reimplement legacy softwares into a cloud one.

Zerorobotics challenge - First place worldwide

International programming competition, 2017/2018 edition

During high school, I was team leader and main developer of the "Space Lions" team, which won the international Zerorobotics challenge launched by NASA and MIT.

Skills

Developing: I deeply know the Typescript/Javascript ecosystem, including Node, Electron, Ionic and HTML/CSS (with Svelte, Vue e React frameworks). I also know Java, Kotlin, Python, Golang, Bash, C, C++, Nim and, with less degree, Matlab and Haskell. I am comfortable with Git, Docker, AWS.

Languages: Italian mothertongue. I am used to write and read in English for my everyday studies. TOEFL Certificate, with a score of 102/120 (more than a C1 level).

Soft skills: quick-learner, able to handle deadlines and last minute issues. I am used to work in groups. As a hobby, I enjoy learning about modern narratology tecnicas.

About me

A sunny and joyful boy, who started programming at eleven years old and never stopped. I love reading, cooking, walking, watching Netflix while drinking a cup of chamomile (tea makes me sleepless). Open-source enthusiast; I wrote and still maintain projects as:

runcss: on-the-fly javascript compiler for Tailwind.

Magebook editor: a web app to write interactive fiction and gamebooks. Key features: collaborative editing based on Firebase, Word/Libreoffice interoperability, template to make Ionic apps. Employed by many italian publications

hdt-wasm: WebAssembly port of the HDT library, used for graph databases.

ipyccpp: Jupyter kernel to run C++ codes into notebooks. Similar to xeus-cling, but simpler, hackable and with less magic behind.

electron-iso-packager: Node library to package electron projects into self-bootable CD .iso files, based on Tiny Core Linux.



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