LORIS GIRAUDO
Master's Degree in Computer Science | Software Developer

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ℹ I authorize the processing of personal data pursuant to Legislative Decree 196 of 30/06/2003, and Article 13 of the GDPR.

I obtained a Master's Degree in Computer Science from the University of Turin, specializing in "Artificial Intelligence and Information Systems." The main courses attended include: Machine Learning, Deep Learning, Natural Language Processing Technologies, Bioinformatics, and Advanced Software Technologies and Architectures. Through work experiences and personal projects, I have gained practical skills in software development using various programming languages and frameworks.

🎓 EDUCATION

2022/23 **Master's Degree in Computer Science**, University of Turin, Department of Computer Science, specialization in "Artificial Intelligence and Information Systems". *Final Grade: 110 cum laude (April 14, 2023)*

2020/21 **Bachelor's Degree in Computer Science**, University of Turin, Department of Computer Science. *Final Grade: 110/110.*

2017 **High School Diploma**, Istituto Tecnico Superiore G. Vallauri, Fossano (IT), Technological Sector with specialization in "Computer Science and Telecommunications". *Final Grade: 79/100.*

💼 WORK EXPERIENCE

June 2025
January 2024

CTO and Co-Founder, LUMEN LABS - TALKKIT, TURIN IT

> Co-founder and CTO of an innovative startup in the Ed-Tech sector. **Talkkit** is a language learning app that enables users to have natural conversations with an **intelligent virtual avatar**. The app was developed using **Flutter**, deployed on both **iOS and Android**, and integrates a **Unity** module to manage the 3D avatar, including animated models and lip-sync capabilities.
Natural conversation is powered by integrated **LLMs** via **LangChain** and **RAG** mechanisms to personalize responses based on context and user profiles. The system uses **text-to-speech** and **speech-to-text** modules for voice communication, and includes features for **speech assessment**, real-time **grammar correction**, and adaptive learning suggestions.
As CTO, I was responsible for all stages of the product lifecycle: from ideation and initial research, to design, development, testing, and deployment in **Azure cloud** environments. The backend was built using **FastAPI (Python)**.
As Co-Founder, beyond technical work, I actively contributed to the cross-functional management of the startup, including validation, marketing, communication with potential investors, and defining the company's growth strategy.

`Flutter` `FastAPI` `Unity` `Azure` `RAG` `LLM`

Present
April 2023
	Full Stack Developer, DoInn SRL, Mondovì IT
	› Involved in all stages of the software development lifecycle for custom web-based solutions for clients such as **Banco Azzaglio SpA**. I handle requirements gathering, analysis, design, development, testing, and deployment—both independently and as a *Team Leader*.
	Contributed to several key projects:
	  1. **Corporate Welfare Platform**, developed as an ecosystem composed of **four distinct interfaces** for various stakeholders: *Employees*, *Companies*, *Merchants*, and *Admins*. The system includes:
	    › A **Next.js** interface for the *Admin panel*, managing approvals, monitoring, census, public grants, and reporting.
	    › A **Next.js** interface for *Companies*, allowing onboarding of employees, welfare fund management, and expense tracking.
	    › A **React Native** app for *Employees* to view available credit, request and use vouchers, and browse grants and benefits.
	    › A **React Native** app for *Merchants* to manage voucher redemption and view transaction history.
	    The system is powered by a centralized **Laravel** backend exposing REST APIs and managing authentication, authorization, business logic, and integration with external services for voucher issuance and public grants.
	  2. **Sound Therapy Platform**, developed to support personalized therapeutic programs, enabling healthcare professionals to assess well-being using an electromagnetic device. The platform is **multi-tenant** and features:
	    › *End Users* with access to an e-commerce portal for purchasing products and services.
	    › *Doctors* managing patients and conducting assessment programs.
	    › *Admins* with a custom CMS for creating evaluation programs and managing configurations.
	    Stack: React, Laravel, FastAPI.
	  3. **RAG Chatbot** (Retrieval-Augmented Generation), integrated with an internal document archive in a banking intranet. It allows retrieval and contextual consultation of PDF content using GPT models and a vector engine powered by **QDrant**. *Stack: Sencha Ext JS, FastAPI, QDrant.*
	  4. **Securitization Management System** for internal use within a banking institution. It enables the complete management of securitization operations with focus on **data versioning**, **data validation**, and **official report generation** for communication with other financial institutions and authorities. *Stack: Sencha Ext JS, Laravel.*
	  5. **Hardware Rental Platform**, a **multi-tenant** system for companies renting tech equipment. Each company has its own dashboard to manage clients, configure products, set prices, and generate rental orders. *Stack: React, Laravel.*
	NextJS · Sencha Ext JS · Laravel · React · FastAPI · QDrant

January 2023 **September 2022**	**Thesis Internship - Data Scientist, Alten Italia S.p.A., Turin IT** › Studied and analyzed time series data for anomaly detection. › Applied machine learning methods for detecting irregular patterns. Machine Learning · Deep Learning · Anomaly Detection · Time Series
September 2022 **December 2019**	**Full Stack Developer, Sguang Informatica SRL, San Rocco IT** › Developed web-based management software according to client specifications using **JavaScript** (Vue.js) for frontend and **Python** (Django) for backend. Involved in all phases of the process—from data gathering to server deployment. These systems typically focused on customer management, appointments, sales orders, quotes, rentals, interventions, or maintenance operations. › Managed web hosting, domains, and VPS through services such as Aruba, Register, and Netsons. › Developed small web applications in PHP. › Built websites using WordPress. Vue · Django · WordPress · XAMPP

≡ Skills

Languages	TypeScript, JavaScript, Python, Java, Kotlin, Dart, PHP, C#.
Frameworks	Flutter, Spring, Django, Vue, NextJS, React, FastAPI, Laravel, Sencha Ext JS, Unity.
Mobile Development	Native (Java/Kotlin & XML/Compose) and Cross-platform (Flutter).
Databases	MySQL, PostgreSQL, SQL Server, QDrant.
Development Tools	JetBrains IDEs, Code Editors, GIT, Jira, Docker, Heroku, CI.
Modeling	UML, ORM, BPMN.
AI	Data Analysis & Machine Learning Models, RAG, LLMs.

🗛 Language Skills

Italian	Native speaker.
English	Good listening, writing, and reading skills. Fair speaking ability.

⚙ Skills

Organizational Skills	Ability to work under stress, especially in situations involving public interaction and deadlines related to work activities.
Interpersonal Skills	Proficiency in team management and achievement of individual goals: > Willingness to explore and embrace new opportunities. > Strong communication and interpersonal abilities. > Ability to manage commitments independently with punctuality and precision.
Entrepreneurial Skills	Direct experience in founding and managing a tech startup: > Habit of making quick decisions in uncertain and fast-changing contexts. > Problem-solving attitude and continuous experimentation, even with limited resources. > Experience in defining and validating a product, from design to development and release. > Cross-functional management of non-technical activities: stakeholder communication, planning, fundraising, marketing, and administration.

🖳 Personal Projects

Unsupervised Anomaly Detection for a Manufacturing Industry   2023

Research thesis for the Master's degree. The study focused on unsupervised anomaly detection in time series data from a manufacturing industry.

○ github.com/lorisgir/TESI-MAGISTRALE .

Machine Learning Deep Learning Time Series Model Selection Anomaly Detection

Booksriver   2022

Booksriver is a mobile application. It offers a wide library of books that users can browse, track their reading progress, write reviews, and follow other users. The app was developed in three versions: native Android using Java and XML, native Android using Kotlin and Compose, and cross-platform using Flutter.

The backend was designed using the Spring Boot framework following a microservices architecture, including communication and coordination services such as RabbitMQ, EUREKA, and Gateway. Deployment was handled via Docker Compose and GitLab CI pipelines.

○ github.com/lorisgir/Booksriver .

Spring Java Kotlin Dart Flutter Compose Docker Microservices