



ANDREA VENTURA

Backend & Full Stack Software Developer | AI Expert

🌐 andreaventura.online
☎ +39 351 793 7301
✉ a.ventura239@icloud.com
🏠 Reggio nell'Emilia, Italy

WORK EXPERIENCE

Backend Software Developer & DevOps Specialist

POINTER SRL | Feb 2026 - Present | Rivalta, 42123 via della repubblica 28, Italy

- ▶ Backend engineering in **Python (FastAPI, Flask)** for core services, custom ERP modules, relational databases (PostgreSQL/MySQL), and ORMs
- ▶ Design of scalable **HTTP/REST APIs**, automated server-side testing, and comprehensive technical documentation and system blueprints
- ▶ Full autonomy on **Linux** systems, **Docker** containerized environments, CI/CD pipelines, secure VPN gateways, and config automation

Backend Software Developer

WIMORE srl | Apr 2024 - Feb 2026 | Reggio nell'Emilia, Italy

- ▶ Engineered mission-critical server-side automation workflows, database procedures, and cloud connectors for telecom platforms
- ▶ Designed and documented custom **RESTful API integrations** linking external provisioning microservices with the core CRM architecture

Software Analyst & Developer

Energiee3 | Jun 2023 - Aug 2023 | Reggio nell'Emilia, Italy

- ▶ Developed server-side features in **production Python**, relational database interaction (MySQL via ORM), schema modeling, and validation
- ▶ Architected, documented, and tested automated REST API data migration pipelines across heterogeneous relational databases on Linux

Software Developer & ICT Help Desk

INTREND - Diffusione Tessile (Max Mara Fashion Group) | Mar 2020 - Feb 2021 | Reggio Emilia, Italy

- ▶ Core member of the central CED; developed production Python/SQL scripts for automated data extraction, operations, and retail telemetry
- ▶ Tier-2 systems administration on Linux/Windows, POS infrastructure troubleshooting, and internal technical documentation authoring

ICT Network Administrator & Systems Technician

GAB Tamagnini | Jun 2018 - Feb 2020 | Reggio nell'Emilia, Italy

- ▶ Autonomous Linux/Windows server and network infrastructure management for nationwide Large-Scale Retail (GDO / Conad) point-of-sale systems

PERSONAL AI PROJECTS

Agentic AI Business System

Autonomous Multi-Agent Architecture

Architecture and implementation of an autonomous enterprise ecosystem powered by cooperating intelligent agents (Agentic Workflows), structured across 4 automated operational divisions:

- ◆ **Ebook Publisher:** autonomous end-to-end generation, editing, layout, and publishing pipeline.
- ◆ **Web Agency:** automated generation of modern websites, optimized landing pages, and conversion copy.
- ◆ **Social Content Factory:** scalable multi-channel copy generation, visual assets, and content scheduling.
- ◆ **Software House:** specialized agents for code scaffolding, feature development, and unit test generation.

AI MUSIC VIBEZ

Production Python - AI Audio Engine

Autonomous YouTube channel for producing and releasing AI-generated music tracks, operated entirely via **Python** scripts and automated pipelines for audio synthesis, dynamic video editing, and scheduled uploads.

AI Concept & News (Vodcast "Singolarità")

Tech Intelligence - Editorial AI

Frontier technology research, concept design, and structured intelligence synthesis on state-of-the-art Artificial Intelligence trends for the *Singolarità* vodcast.

EDUCATION & TRAINING — COMPETENCIES

Full Stack Web Developer Academy

Sep 2023 - Mar 2024 · 1,000+ Hours

EPICODE School · Professional Certification FS0523IT

Intensive full-time academy focused on enterprise software engineering, scalable backend architectures, and CI/CD pipelines.

- ◆ **HTTP/REST API Design & Backend:** Server-side architectures, Object-Oriented Programming (Java/Python), Spring Boot framework, **JWT** authentication, and contract-first API design.
- ◆ **Relational Databases & ORM:** Relational schema modeling (**PostgreSQL, SQL**), advanced ORM mapping with **Hibernate / JPA**, ACID transactions, and data consistency.
- ◆ **Automated Server-Side Testing:** Writing and executing automated unit and integration tests (**JUnit, Mockito**), coverage testing, and payload validation.
- ◆ **Containers & Build Pipelines:** Dependency management (Maven), version control, and CI/CD with **Git & GitHub**, integration with modern SPA frontends (Angular, TypeScript).

Data Analysis & Database Specialist (IFTS)

Nov 2020 - May 2021 · Post-Diploma Technical Specialization

FSE - IFOA · Information and Communication Technologies

Advanced technical specialization in enterprise data management, relational database engineering, and data pipelines.

- ◆ **Data Engineering & Relational DBs:** Conceptual and logical modeling (E-R), normalization (3NF), RDBMS design and administration (**PostgreSQL, MySQL**).
- ◆ **Query Optimization & Documentation:** Advanced querying, indexing, query execution plan optimization, **ETL** pipelines, and technical documentation of schemas and data flows.

Network & Systems Administrator

Feb 2018 - Jun 2018 · Technical Specialization

FSE - IFOA · Information Systems Specialist

Advanced training in enterprise infrastructure, networking protocols, full autonomy on Linux operating systems, and security.

- ◆ **Full Autonomy on Linux:** Installation, configuration, and hardening of **Linux distributions (Debian, Ubuntu, CentOS)**, **Bash** scripting, and server daemon management.
- ◆ **Networking & Release Environments:** TCP/IP stack, subnetting, switches/routers, DNS, gateways, perimeter firewalls, secure VPNs, and network diagnostics.

Scientific High School Diploma (Experimental STEM Curriculum)

2007 - 2012

ITGS BUS "Blaise Pascal" · Reggio Emilia, Italy

Five-year experimental STEM program: rigorous scientific, analytical, and multidisciplinary foundation (Advanced Physics, Calculus, Chemistry, Computer Science, and Humanities).

- ◆ **Scientific Method & Critical Thinking:** Abstract reasoning, deductive problem-solving, quantitative analysis, and logical modeling of complex problems.
- ◆ **Graduation Research Thesis:** "SEAWATER - An Infinite Resource" — Interdisciplinary study on desalination, reverse osmosis, thermodynamic principles, and renewable resources.

TECHNICAL & BACKEND SKILLS

- ◆ **Backend & Python Core:** Python in production, FastAPI and Flask frameworks, Java (**Spring Boot**), OOP, Microservices, Scalable Server-Side Architectures.
- ◆ **APIs & Automated Testing:** HTTP/REST API Design (**OpenAPI/Swagger**), Automated Server-Side Testing (**pytest, unittest, JUnit**), Integration Testing, Input Validation.
- ◆ **Databases & ORMs:** Relational Databases (**PostgreSQL, MySQL**), Database ORMs (**SQLAlchemy, Hibernate/JPA**), SQL Query Optimization, Transactions, Schema Normalization.
- ◆ **Linux, Docker & Docs:** Full autonomy on **Linux (Debian, Ubuntu, CentOS)**, Bash/Shell scripting, **Docker & Containerized Environments**, CI/CD, Git, **Technical Documentation**.
- ◆ **AI & Agentic Systems:** LLMs (**OpenAI, Gemini, Anthropic APIs**), Agentic AI Workflows, RAG Architectures, Tool Calling, AI-assisted software automation.

LANGUAGES

Italian: Native speaker

English: B2 (Listening/Reading) · B1 (Speaking/Writing)

MINDSET & CULTURE

Point of reference for junior peers, clear technical documentation writer, rigorous engineering method, high problem-solving capacity, and code quality advocate.