Luca Atella

Backend Engineer · **Platform Architect** · **Systems Designer**
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Summary

Backend engineer focused on **integration-heavy platforms**, **runtime governance**, and **real-time systems**.
I design evolvable systems that normalize heterogeneous inputs and enforce contracts.

Core Strengths

- Platform backend architecture (integration-first, multi-tenant systems)
- Plugin-based systems and modular execution boundaries
- Runtime contracts, validation, and architectural invariants

Experience (Abstracted)

Technical Lead · Software Architect — Industrial IoT Platform (SAFE)

2021 – 2024

- Designed a plugin-governed backend platform for heterogeneous and vendor-agnostic devices
- Defined a unified device model and runtime contract enforcement
- Built event-driven pipelines and real-time updates
- Developed CLI workflows for testing and packaging
- Led a small backend team and coordinated architecture decisions

Backend Engineer — Real-Time Fleet Telemetry (SAFE)

2020 – 2021

- Built a real-time ingestion backend over persistent connections
- Normalized heterogeneous telemetry into versioned schemas
- Implemented runtime validation and structured diagnostics
- Exposed fleet state via REST APIs and real-time streams

Selected Work

ImportSpy (Open Source)

- Runtime contract engine for Python modules
- Declarative SpyModel for structural, contextual, and runtime execution constraints
- High-performance validation for modular and embedded systems
- 15K+ installs on PyPI and organic adoption

Unified Backend Platform (SAFE)

- Plugin lifecycle governance, versioning, and execution context isolation
- Declarative UI schema (Widget DSL)
- Centralized CRUD, REST, WebSocket updates, pub/sub
- CLI-driven Docker and Kubernetes workflows

Education

BSc in Computer Science and Technology (L-31) — University of Basilicata
2018 – Present

Languages

Italian (native) · English (professional)

Tech

Python · REST · WebSocket · Docker · Kubernetes · Linux · Networking · Runtime Security