Antoni Llop Paredes

Computer Science and Engineering | DevOps · Infrastructure · Backend · Local AI
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Professional summary

Final-year Computer Science and Engineering student at URV (expected graduation: February 2027), focused on DevOps, Linux, backend and distributed systems. Hands-on projects in infrastructure automation, containers, observability and local AI.

Experience and collaborations

Biosfer Teslab · Lipopotamo Platform 2026 – Present
Scientific software development (technical collaboration) *Tarragona*

- Worked on scientific software execution and sample/batch processing with Python, FastAPI, MongoDB and asynchronous workers.
- Contributed to service orchestration with Docker Compose, execution history and rerun workflows, and authentication integration using Keycloak.

WaveSOS / Reial Club Nàutic Tarragona 2022 – 2025
Beach and pool lifeguard *Tarragona*

- Prevented safety incidents, responded to emergencies and provided first aid.

Selected technical projects

Jaull | *Python, llama.cpp, Hugging Face, GGUF, Typer, Textual* 2026 – Present

- Developed an open-source toolkit that detects hardware, estimates RAM/VRAM and recommends local LLMs based on compatibility, resources and workload priorities.
- Resolves and verifies model artifacts, runs models via llama.cpp, benchmarks performance and compares predictions with actual measurements; includes CLI/TUI, tests and backend validation.

Homelab | *Proxmox VE, Linux, LXC, Docker, Pi-hole* 2026 – Present

- Built a Proxmox VE home server with LXC/Docker containers hosting Pi-hole (local DNS) and Homarr.
- Built a Docker-based energy monitor using Tapo P110; documented the deployment and network.

Infrastructure: Debian to Kubernetes | *Linux, Terraform, K8s, Docker* 2026

- Reproducible Debian server provisioning, hardened SSH, systemd, verified backups and recovery procedures.
- Deployed Nginx, Flask and Redis on Kubernetes with NetworkPolicies, Terraform and Prometheus/Grafana observability.

Distributed ticketing service | *RabbitMQ, PostgreSQL, AWS ECS Fargate* 2026

- Queue-based worker architecture with idempotent operations, retries, a dead-letter queue and autoscaling; latency and throughput testing.

Beer Fantasy | *Flutter, Supabase, PostgreSQL, n8n* 2026

- Android app published on Google Play with authentication, social leagues, row-level security (RLS) and automations.

Education

BSc in Computer Science and Engineering 2022 – Feb 2027 (expected)
Universitat Rovira i Virgili (URV) *Tarragona*

- Bachelor's thesis: developing and validating recommendations for local AI model execution, with planned evaluation on Biosfer use cases.

Technology-focused upper secondary diploma
La Salle Tarragona

Technical skills

Languages and backend: Python, Bash, C, Java, SQL, FastAPI, React/TypeScript, Flutter/Dart.
Systems, DevOps and cloud: Linux (Debian/Ubuntu), Docker/Compose, Kubernetes, Terraform, AWS ECS/Fargate, GitHub Actions, systemd.
Data, observability and security: PostgreSQL, MongoDB, RabbitMQ, Redis, Prometheus, Grafana, Keycloak, SSH, NetworkPolicies.
Local AI and quality: llama.cpp, GGUF, Hugging Face, CUDA/Vulkan, pytest, Ruff, mypy, benchmarking.

Languages

Catalan and Spanish: native | **English:** B2 | **German:** basic