

Ruan Comelli

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Software engineer building tools that developers love using: from automation to AI integration to static analysis. Passionate about code quality, developer experience, and robust systems design.

Florianópolis, SC - Brazil 

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Work Experience

Senior Software Engineer @ [Intellectsoft](#) (contractor)

Aug 2025 - Present

- Designed and implemented a new API to enable quick comparison of different GenAI models
- Investigated and resolved critical issues in the backend systems of multiple existing applications, enabling deployment of 5 previously blocked apps to production
- Currently developing RAG capabilities for a QnA agent, including building an ETL pipeline, integrating a vector DB and implementing the retrieval logic

Senior Software Engineer @ [Waivern](#) (freelancer)

Feb 2025 - Aug 2025

- Led initial development of an open-source framework for GDPR/AI Act compliance analysis
- Designed a modular plugin system to support extensibility across diverse legal and technical use cases
- Acted as a technical consultant reviewing system design and guiding long-term engineering direction

Senior Software Engineer @ [Sourcery AI](#)

Nov 2021 - Feb 2025

- Designed and implemented LLM-powered AI agents for automated [code review](#) and [bug fixing](#)
- Re-architected an event-driven GitHub/GitLab bot infrastructure supporting [natural language comment commands](#)
- Owned features loved by our users, like automated [PR titles and summaries](#); [Mermaid diagram visualization](#)
- Built evaluation datasets and scripts for AI-generated patches, using LangSmith for testing and observability
- Improved our [CLI](#), [GitHub Actions](#), and [IDE extensions](#) to streamline workflows and increase adoption
- Led codebase modernization efforts; enhanced our internal static analysis engine; added linting and refactoring rules

Tech Lead @ [Elint Tech](#)

Dec 2020 - Nov 2021

- Led a team of 4 engineers in successfully developing a tool for automated PDF data extraction
- Architected and implemented a custom OCR solution that outperformed state-of-the-art commercial tools, including Google Vision, by combining Tesseract with modern open-source models
- Designed and implemented serverless document processing pipelines using infrastructure-as-code

Skills

- Programming Languages:** Python (primary, extensive experience), Rust (learning), C/C++ (familiar), Shell scripting
- Operating Systems:** Linux (Ubuntu, 8+ years of personal and professional use), Windows (familiar)
- AI & Data:** Agentic AI, RAG, MCP; Pydantic, PydanticAI, LangChain, LangSmith, LangGraph; LLM integration, prompt/context engineering, model evaluation; TensorFlow, PyTorch, OpenCV; NumPy, Pandas, Polars, SQLAlchemy;
- Backend, Tooling & DevOps:** [UV](#); [Typer](#), MkDocs; CI/CD, Git, GitHub, GitHub Actions; FastAPI, Docker, GCP, AWS
- Code Quality & Testing:** Ruff, MyPy, Tree-sitter; Pytest, CodeCov; TDD, focus on type safety, maintainability, robust test coverage, and comprehensive documentation for users & devs
- Architecture, Product & Strategy:** Systems architecture, domain-driven design, modularization, API/service design, event-driven systems, product vision, prototyping & MVP development, user-centric design, metrics-driven decisions, emerging tech adoption, stakeholder collaboration
- Communication & Collaboration:** Clear verbal & written communication, async/sync collaboration, active listening, excellent mentor-level code reviews, user & dev documentation, meeting facilitation, cross-functional teamwork
- Mindset & Problem Solving:** Critical thinking, adaptability, proactivity, continuous learning, positive attitude
- Open Source & Personal Projects:** Contributed [a PR to the Rust compiler](#). Created [Brag AI](#) (still v0.X!), a CLI tool to turn Git commits into polished achievements. Open-sourced my Master's deep learning research in [Boiling Learning](#).
- (Human) Languages:** English (professional), Portuguese (native)

Education

Master's in Mechanical Engineering @ [Universidade Federal de Santa Catarina](#) | [Paper](#) • [Thesis](#)

2019 - 2023

- Built an AutoML-optimized CNN for pool boiling heat flux estimation on 200,000+ images
- Reduced prediction error by 73–80% with a CNN up to 96% smaller than the previous state-of-the-art

Bachelor's in Mechanical Engineering @ [Universidade Federal de Santa Catarina](#)

2014 - 2018

- Worked as a junior researcher for 2.5 years, developing numerical simulators in C++ for computational fluid dynamics