

ISAAC VALERIANO

BACK-END SOFTWARE ENGINEER | APPLIED AI & CLOUD

Maceió, Brazil | Fully remote | Advanced English

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PROFESSIONAL SUMMARY

I build backend APIs and systems with Go, Python and PostgreSQL. My experience combines professional work at DIT/IFAL with personal projects in web applications, AI model integration and market-data infrastructure. I am studying Economics at UFAL and Data Science at Infnet. I aim to connect software engineering, data validation and business context in digital products, including financial technology.

PROFESSIONAL EXPERIENCE

Backend Development | DIT - IFAL

March 2025 - September 2026 | Remote

- Contributed to the backend of an institutional application using Go, Echo, GORM and PostgreSQL, working with the development team.
- Worked on refactoring, features and REST API maintenance, with separation between application and persistence layers.
- Collaborated on contract, mock and test updates as the API evolved, using Git and code review. Institutional repository and contributions remain private.

SELECTED PROJECTS

EduRepo | Academic repositories

Built file versioning, role-based access control, audit trails and upload validation. Uses Next.js, TypeScript, Prisma/PostgreSQL, Redis and S3-compatible storage. Includes Vitest/Playwright tests and GitHub Actions continuous integration.

github.com/yMScorpion/EduRepo

StratHUB | Applied AI for documents

An ongoing project using PDF ingestion, chunking, embeddings and LLM integration to structure strategy specifications. Outputs are checked through JSON Schema and semantic validation, with references to source pages. Python, FastAPI, Pydantic and pytest.

github.com/yMScorpion/StratHUB

PROJECTS AND SKILLS

Argus / MERCURY | Market-data systems

Personal research in private repositories. Argus explores an L2 order book in Rust, interprocess communication, checkpoints and deterministic replay, with property-based tests. MERCURY explores feeds, event normalization, reconciliation and exposure controls. Both are in development; no financial performance or live operation is claimed.

TTSapi | Speech inference service

Private personal project adapting StyleTTS2 into an API using Python, FastAPI and PyTorch. Integrates JWT authentication, audio processing, concurrency control, Docker Compose and Prometheus/Grafana metrics. The original model is credited to the StyleTTS2 team.

AIBE | Agent coordination

Private experimental project with task routing, agent registration, persistence and APIs using Python, FastAPI, SQLAlchemy and PostgreSQL. Includes unit and integration tests.

TECHNICAL SKILLS

Back-end: Go (Golang), Python, Rust, JavaScript, TypeScript, Node.js, FastAPI, Express.js, Echo, GORM, Pydantic, REST APIs, WebSocket, webhooks, async and concurrency.

Data: SQL, PostgreSQL, SQLite, Redis, Prisma, SQLAlchemy, data modeling and validation.

AI: LLMs, embeddings, RAG components, agents, PDFs, JSON Schema, PyTorch, CPU/GPU inference and speech synthesis.

Cloud/DevOps: AWS SDK, S3-compatible storage, Docker, Docker Compose, Kubernetes, Git, GitHub Actions, CI/CD, OpenTelemetry, Prometheus, Grafana and logs.

Quality: DDD, TDD, hexagonal architecture, OOP, refactoring, mocks, pytest, Vitest, Playwright, unit, integration, E2E and property-based tests.

Security: JWT, RBAC, signed URLs, audit trails and upload validation.

Web/mobile: React, Next.js, Vite, Tailwind CSS, HTML5, CSS, Flutter, Dart and responsive design.

Other: CLI, packaging, scheduling, data structures, order books, deterministic replay, risk controls, Scrum and Kanban.

EDUCATION AND LANGUAGES

Economics - Federal University of Alagoas

Bachelor's degree in progress | Feb 2026 - Feb 2030 (expected)

Data Science - Instituto Infnet

Undergraduate technology degree in progress | Feb 2026 - Feb 2028 (expected)

Languages: Portuguese and advanced English.