Kleyson Prado

STAFF SOFTWARE ENGINEER · MOBILE, PLATFORM & APPLIED AI

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Staff engineer with **25+ years** shipping software across mobile, web, backend and infrastructure, from running a university's IT department in Brazil to national systems used by millions and product companies in Canada. I own systems end to end, design the platforms other engineers build on, and bring **AI into real products**: LLM tool-calling, on-device assistants, and agent-driven engineering workflows with the review gates that make them trustworthy.

WHAT I BRING

Technical leadership

Multi-quarter system migrations, architecture, platform design, and root-causing the production incidents nobody else can pin down. Led teams of up to 22.

Applied AI

LLM tool-calling frameworks, on-device and streaming speech, AI features in shipped products, and coding agents that ship through CI and code review.

Breadth

Mobile, web, backend, cloud, infrastructure as code, desktop and embedded. Comfortable in TypeScript, Go, Python, Swift, C#, Java and PHP.

EXPERIENCE

BuildOps — Staff Software Engineer

2021 – present

Operational software for commercial contractors. I own core systems of the field-technician app and the platform around it.

- **Led the multi-quarter migration of time tracking** to a new offline-first architecture: data model, sync, fine-grained permissions, payroll rules and audit log, through production rollout and hardening.
- **Designed the AI tool-calling framework**: one declaration yields the types, per-provider JSON Schema, runtime validation and user confirmation, so a new AI action is one file. Shipped an **on-device voice assistant** with an offline fallback and de-risked streaming dictation with a new native bridge.
- **Replaced a commercial PDF SDK** with an in-house PDFium-based viewer: annotation model, measurement and an incremental PDF writer in TypeScript, rolled out behind a feature flag.
- **Built the internal engineering platform**: one registry exposing operational scripts over REST, CLI, MCP and agent tools; a desktop app for operations and over-the-air update control; an on-device test harness; simulator-driven PR previews; and fault-injection tests in CI.
- Delivered features across the whole stack, from **AWS infrastructure through web to mobile** (forms designer), plus invoicing and payments end to end and a Python/FastAPI PDF service with a full-stack E2E suite.
- Root-caused hard production incidents spanning client and backend: offline-sync stalls, native hangs invisible to metrics, and authentication edge cases.

Telus Agriculture — Senior Software Engineer

2019 – 2021

Joined through the acquisition of FarmAtHand; technology for food production.

- Modernized the acquired product end to end: mobile app with i18n and offline sync, a redesigned Node API layer, and AWS infrastructure moved to Terraform with CI and autoscaling.
- **Led the stack migration** from Node/React/PostgreSQL/AWS to .NET Core/Angular/SQL Server/Azure after the corporate merger.

SkipTheDishes — Senior Software Engineer 2017 – 2019

Food delivery across 500+ cities. The company that brought me to Canada.

- Migrated the customer site from Python to React/Redux with full i18n in three months, **launching Quebec in French ahead of competitors**.
- Built real-time operations tools (chat, dashboards, live updates) on GraphQL subscriptions, DynamoDB and Kinesis, and automated back-office workflows.

DATAPREV — Systems Analyst 2012 – 2017

Brazil's public IT company for social security: 23 states, 3 data centres, 5,000+ employees.

- Drove engineering modernization: Agile with BDD, code review and CI/CD; trained teams in React and React Native and moved JSF applications to SPAs.
- Shipped two national apps (Meu INSS, SINE Fácil) reaching **20+ million users**.

Vale do Acaraú State University — Intern to IT Director 1998 – 2012

Public university in Ceará, Brazil. Intern in 1998, developer and team lead from 1999, IT Director from 2011.

- As **IT Director, led a 22-person team** running all university IT and 50+ applications; contract negotiation saved close to R$1M.
- Moved the academic system from Clipper to a LAMP stack, enabling the university's first online enrollment; led 5 developers redesigning 20+ modules, supporting 40% growth in students.

INDEPENDENT WORK

- **Foreman**, a personal control center: a browser workspace for docs, boards and budgets, a Go CLI, a Swift menu bar app, an AI agent that triages alerts and failing builds, and ESP32 desk displays.
- **Homelab as code**: Ansible and Terraform across Proxmox, Oracle Cloud and OVH, with single sign-on, full observability, automated restore drills and one-command rebuilds from a blank disk.
- **Agentic engineering**: coding agents on several machines under one versioned standard, shipping only through pull requests with CI and review, plus a weekly security and drift sweep of every repository.

SKILLS

LANGUAGES TypeScript, JavaScript, Go, Python, Swift, C#, Java, PHP, SQL

PRODUCT React, React Native, Next.js, Angular, Vue, Node, GraphQL, .NET, FastAPI

DATA PostgreSQL, MySQL, SQL Server, Redis, DynamoDB, SQLite / offline sync

INFRA AWS, Azure, Terraform, Ansible, Docker, Proxmox, CI/CD, observability

AI LLM tool-calling, on-device AI, speech, MCP, coding agents

EDUCATION & CERTIFICATIONS

B.Sc. in Computer Science
Vale do Acaraú State University

Post-graduate in Software Engineering and **in e-Learning**
UNINTA College

Certified ScrumMaster, Scrum Developer, Scrum Product Owner
Scrum Alliance