LUCAS RANGEL

SÃO PAULO, BRAZIL

Senior Full Stack Software Engineer | Early-Stage Startups & AI/ML Systems



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WORK EXPERIENCE

Yellowpad 05/2024-Present

Founding Engineer Remote <u>yellowpad.ai</u>

Built an agentic document editor for contract review and drafting with human-in-the-loop workflows. Key technical contributions:

- Architected LangGraph-based agent workflows for contract drafting and review with retrieval-augmented generation for contextual document understanding.
- Built evaluation framework measuring agent goal and tool call accuracy.
- Built observability with OpenTelemetry for logging, metrics, and alerting in production.
- Built tool execution framework with state synchronization enabling simultaneous AI and manual document editing.
- Built Next.js application with real-time document collaboration UI.
- Developed type-safe database layer using Drizzle ORM with multi-tenant data isolation patterns and SOC 2 compliance.
- Architected GCP infrastructure with Terraform, including Cloud Run and Pub/Sub message queuing.
- Built bidirectional data transformation layer between Slate editor JSON format and Word Docx, preserving formatting and metadata.

Plaza 07/2023-05/2025

Founding Engineer São Paulo, Brazil <u>useplaza.com.br</u>

- As first engineering hire, built product from concept to hundreds of real estate companies, owning full technical architecture and implementation using Ruby on Rails, Hotwire, Stimulus Reflex, Phlex, and Sidekiq.
- Set up entire technical foundation from CI/CD to observability to infrastructure-as-code across Azure and AWS using Terraform and Docker.
- · Shipped features weekly with automated testing, crucial for rapid iteration during product discovery phase.
- Built AI chatbot for real estate lead qualification through WhatsApp integration, improving closing rates by 30% with automated conversation flows and follow-up.
- Implemented RAG-based search to match real estate listings with user requirements.
- Drove product direction and roadmap, influencing key decisions and features based on customer feedback and market validation.

Remoov 09/2020-07/2023

Full Stack Software Engineer Remote remoovit.com

- Implemented new features end to end, utilizing Node.js, React, React Native and PostgreSQL for full-stack web and mobile applications.
- Developed internal tools using Rust to enhance developer productivity.
- Built code mods to aid in large refactoring projects, reducing technical debt while saving hundreds of engineering
- Mentored junior engineers on best practices, code quality, and technical problem-solving.
- Solved Node.js performance and scaling issues by fixing memory leaks and improving memory usage, reducing startup time by ~2x and memory usage by ~4x.

Nextel Brasil 06/2018-09/2020

Data Engineer and Data Scientist

São Paulo, Brazil

Nextel Brasil

- · Developed a credit score model using machine learning algorithms to assess customer debt repayment likelihood.
- Built Hadoop data pipelines using Apache Airflow, Hive, Python, and Scala.

· Worked with query optimization for large datasets including geospatial data.

EDUCATION

Federal University of ABC - UFABC

2014-2019

- B.S. Computer Science
- · B.S. Science and Technology
- Additional coursework:
 - Parallel computing, machine learning, and statistical inference
 - Computational neuroscience and bioinformatics
 - Functional and logic programming

PERSONAL PROJECTS

OxyLisp, a Lisp interpreter in Rust.

- Tree-walk evaluator
- Interactive REPL with live demo at rangel.sh/oxylisp_repl

Ophlex-emmet-lsp, a Language Server Protocol implementation in Rust for Phlex templates.

- Uses a PEG parser
- · Published on crates.io with VS Code and Neovim editor support

• plate-docx-deserializer, a DOCX-to-Plate deserializer written in Gleam.

- Compiles to JavaScript with TypeScript declarations
- Live demo at plate-docx.vercel.app

O ts-mcp-forge, a TypeScript framework for building MCP servers.

- Decorator-based tool registration with automatic Zod schema generation from TypeScript types
- · Toolkit system for grouping related tools with namespacing to avoid context bloating
- · Published on npm with production-ready compliance test suite

? zmcp, an MCP server bridging <u>Obsidian</u> vaults with AI assistants.

- Multiple tools for note management, task tracking, and flashcard generation
- Vault-based prompts and resources: Users can store and edit their prompts and resources in Obsidian and use them in any MCP client

ankura, a type-safe configuration tool for <u>Karabiner-Elements</u> using Apple's <u>Pkl</u>.

- · Declarative DSL for defining keymaps with autocomplete, type safety, validation, and editor support
- First-class support for popular macOS window managers and applications, live-reload for instant configuration updates
- · Published as a Homebrew package