Nicolas Gonzalez

✉ nicolasdgonzalez@proton.me | ⌥ nicdgonzalez | ⚇ nicdgonzalez.github.io

Software Developer

Self-taught developer with 5 years of intensive, hands-on programming experience delivering backend systems, full-stack applications, and developer tools. Adept at quickly learning new technologies, building production-ready solutions, and working independently in remote environments. Skilled across multiple languages and frameworks, with a proven ability to automate workflows, optimize processes, and create robust tools for real-world use.

Professional Experience

Backend Developer (Hybrid) - Bojano Homes LLC

March 2023 - May 2023

○ Automated client onboarding by creating a Python/Selenium/MongoDB tool to extract Airbnb listing data, reducing onboarding time from hours to minutes.

○ Built and deployed a Discord bot (Python/PostgreSQL/discord.py) to Heroku to send role-based reminders, improving task completion rates.

○ Carefully designed and implemented robust data extraction with exponential back-off retry logic to prevent rate limiting, ensuring reliable ingestion of Airbnb listing data into a centralized database for frontend access.

Fullstack Developer (Remote) - Bojano Homes LLC

September 2024 - March 2025

○ Developed a full-stack property dashboard (Rust/Axum backend; TypeScript/Solid.js/Tailwind CSS frontend) deployed on Shuttle.dev, enabling property owners to track real-time performance metrics.

○ Built a cohesive, responsive user interface with Solid.js, Solid-UI, and Tailwind CSS, accelerating development while maintaining consistent design standards.

○ Streamlined deployment by compiling both frontend and backend into a single Rust-powered server, simplifying infrastructure and reducing operational overhead.

Projects

Monkeylang Interpreter   ⌥ nicdgonzalez/monkey

○ Implemented lexical analysis, parsing, and evaluation, following Pratt parsing and recursive descent techniques.
○ Leveraged Rust's language features to build a clean, safe, and maintainable API.
○ Gained deep experience in language design principles and compiler/interpreter architecture.

Command-line Argument Parser   ⌥ nicdgonzalez/clap

○ Developed a CLI argument parser that uses runtime introspection to automatically generate commands and options from callback function signatures.

○ Reduced boilerplate for CLI applications, improving maintainability and developer experience.

○ Designed with extensibility in mind, enabling developers to add custom argument types with minimal effort.

CLI for Managing Minecraft Servers   ⌥ nicdgonzalez/orbit

○ Built a command-line tool for managing Minecraft servers, supporting safe server version upgrade (and downgrades), configuration management, plugin handling, and automated backups.

○ Implemented caching mechanisms to reduce redundant HTTP requests, improving performance and efficiency.

○ Delivered a feature-rich tool with comprehensive logging and test coverage, ensuring reliability and maintainability.

tmux Session Manager   ⌥ nicdgonzalez/orbit

○ Built an interactive tmux session manager using fzf for fuzzy search and quick switching between environments.
○ Implemented robust error handling, dependency checks, and exit code management for reliable automation.
○ Designed to save developers time by streamlining the creation and navigation of multiple terminal sessions.

SQLAlchemy-like ORM

- Designed and implemented an ORM from scratch, modeling SQLAlchemy's declarative API style.
- Used Python metaclasses to map classes to database tables automatically.
- Improved understanding of the SQL standard, query building, and advanced Python concepts.

Technical Skills

Programming Languages: Python, Rust, JavaScript, TypeScript, Bash Script, Lua, Golang, C, C++
Web Frameworks: Axum, FastAPI, Solid.js, Next.js, TailwindCSS
Databases: SQLite, PostgreSQL, MongoDB
Cloud & Deployment: AWS Lambda, Shuttle, Vercel, Heroku
Tools: Git, Systemd, Crontab