

Manuel Parra

Backend Engineer | Distributed and Financial Systems

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Work: Remote / UTC-4 / English and Spanish / Open to relocating for the right role

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PROFESSIONAL SUMMARY

Software engineer with more than six years building production backends, data platforms, and financial systems. Led backend architecture for multi-tenant construction reporting and onchain wealth automation. Work spans APIs, scheduled workers, audit trails, payment integrations, and real-time state flows.

WORK EXPERIENCE

Technical Lead (IC)

ConTrust Suite - Construction Daily Reporting Platform · Client: Modern Building Leaders (MBL) | March 2026 - Present

- Led two to three frontend, backend, and AI engineers, including junior AI engineers, and designed a multi-repository, tenant-aware construction reporting platform spanning FastAPI services, React/Vite workflows, PDF workers, shared schemas, dashboard analytics, and AI-assisted reporting.
- Built ingestion and mapping flows that convert daily-report PDFs and SharePoint files into normalized reporting data. Records keep raw values, validation flags, source references, and document evidence.
- Improved extraction reliability with source-evidence contracts, idempotent workers, real-document regression tests, accuracy benchmarks, and retry and concurrency controls.

Technical Lead (IC)

ConTrust · Client: Kai Arabia | Remote | January 2026 - March 2026

- Led a three-engineer build, with frontend, backend, and junior AI engineers, of a contractor prequalification, Know Your Business (KYB) verification, and financial-risk platform for Saudi construction. Translated client and product discussions into five architecture documents and more than 44 requirements covering domain rules, system boundaries, and delivery priorities.
- Designed PostgreSQL and FastAPI domain layers for onboarding, KYB and UBO verification, financial facts, risk scores, payments, audit logs, and notifications.
- Built a document processing pipeline for Arabic and English KYB and financial PDFs. It combines optical character recognition (OCR), vision models, layout-aware extraction, deterministic validation, source evidence, and human review.

Systems Architect, Rust Cryptography & Consent Infrastructure (IC)

LayerD · Client: MEMob | Remote | October 2025 - December 2025

- Secured gateway flows for consent ingestion, Merkle batching, HCS anchoring, proof indexing, provider isolation, OIDC and JWKS tokens, API-key rotation, and restart-safe proof recovery.
- Deployed threshold-node infrastructure with NATS JetStream, DKG convergence handling, encrypted key-share storage, deterministic coordination, health checks, metrics, and Railway and Podman hardening.

Backend Engineer & Systems Architect (IC)

Stackit.ai | Remote | March 2024 - October 2025

- Led a team of two to three backend and frontend engineers and owned backend and platform architecture for StackIT's onchain wealth automation product. Connected smart wallets, Aave V3 health-factor protection, Bridge.xyz and Plaid onboarding, Privy authentication, scheduled workers, admin operations, and frontend execution flows.
- Connected Plaid OAuth and Bridge.xyz for Know Your Customer (KYC) and KYB onboarding, bank linking, virtual accounts, transfers, static memos, webhooks, idempotency, and compliance-state synchronization.
- Processed more than \$500K through Bridge and Plaid-linked virtual accounts over six months with no integration incidents.
- Automated Aave V3 health-factor protection for 84 smart-wallet positions. The system supported more than \$2M in collateral flow with zero liquidations over 18 months.

Backend Engineer, Real-Time Sports Gaming Platforms (IC)

Zingiber | Remote | September 2020 - March 2024

- Built backend systems for real-time fantasy sports and gaming products and directed one developer's backend work. Owned API design, MongoDB schemas, WebSocket state flows, sports-data integrations, debugging, and documentation.
- Implemented five-player lobbies with Socket.IO for public and private squads, membership updates, player selection, and shared game state.

SKILLS

Languages: Python, TypeScript, Rust, Go, SQL

Backend: FastAPI, Node.js, Express, REST APIs, WebSockets, background jobs, RabbitMQ, NATS, multi-tenant architecture

Data & operations: PostgreSQL, MongoDB, Redis, Docker, GitHub Actions, OpenTelemetry

Financial systems: Aave V3, Plaid, Bridge.xyz, webhook and payment idempotency

EDUCATION

Bachelor's Degree in Computer Science

Universidad de Carabobo | 2015 - 2021

LANGUAGES

Spanish - Native | English - C1