

ANDRES HERNANDEZ

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Senior software engineer building Python platforms, distributed services, and applied AI capabilities, with an enterprise data architecture foundation. Leads cross-team technical design and production delivery, establishes engineering practices, and develops agentic workflows spanning planning, implementation, verification, and code review.

SKILLS

- **Backend and data:** Python, FastAPI, Django/DRF, SQL, PostgreSQL, Redis, API design, relational data modeling
- **Applied AI and agentic development:** PydanticAI, LiteLLM, LangChain, LangGraph, Codex/ChatGPT, Claude, Cursor, CodeRabbit; skills, hooks, workflows, evaluation
- **Observability:** OpenTelemetry, distributed tracing, Sentry, PostHog
- **Systems and delivery:** Celery, RabbitMQ, Docker, Kubernetes, Helm, CI/CD, GitHub Actions; React, JavaScript
- **Cloud and services:** AWS, GCP, Heroku, Railway, Cloudflare, Resend

EXPERIENCE

OCT 2025 – PRESENT

SENIOR SOFTWARE ENGINEER, QUOTAPATH

- **Led technical design and delivery** of generally available commission draws, enabling customers to replace spreadsheets and manual workarounds; aligned multiple engineering teams with Product and Customer Success.
- **Authored the engineering design document**, evaluated integration approaches through architectural spikes, and implemented foundational calculation logic subsequently extended to recoverable draws and running balances.
- **Extended AI-assisted commission-plan configuration** with prompt context for new plan functionality within a multi-tenant Django and React application.

NOV 2024 – OCT 2025

SENIOR AI/ML SOFTWARE ENGINEER, AMERICAN EXPRESS

- **Built the FastAPI application foundation** for production sanctions and politically exposed person screening, replacing file-based processing on six-hour intervals with request-driven inference supporting account eligibility and restriction decisions.
- **Implemented application lifecycle management**, startup-time model loading, request validation, and configuration; validated representative workloads in staging and configured CPU-based Kubernetes autoscaling through Helm.
- **Instrumented services with OpenTelemetry** traces and spans to isolate model initialization, request preprocessing, and inference latency for bottleneck analysis.
- **Established pull-request reviews** and consistent development environments for approximately 10 engineers across three locations using Docker, uv, Ruff, and pre-commit, expanding shared knowledge across ML projects.
- **Established the FastAPI foundation** for a suspicious activity report summarization proof of concept; guided an engineer on implementation and redaction approaches and prototyped LangChain/LangGraph integrations.

MAR 2022 – NOV 2024

SENIOR SOFTWARE ENGINEER, ALERTMEDIA

- **Owned the platform-wide transition** from uniform administrator access to granular role-based permissions, enabling customers to assign administrative capabilities directly to users or through groups.
- **Built Django/DRF APIs** and asynchronous ingestion with Celery and RabbitMQ; developed integrations with Microsoft Entra ID/Graph API and Concur, and supported production services on AWS.
- **Mentored 5+ engineers** through code reviews and design guidance; co-developed a hackathon prototype translating natural-language criteria into emergency notification-group rules.

SOLOPRENEUR

NOV 2025 – PRESENT | PRE-LAUNCH

FOUNDER & ENGINEER, HUNNIE HOMES (WWW.HUNNIEHOMES.COM)

- **Architecting and building a property-management SaaS** as sole founder and engineer, owning product development and infrastructure spanning Django, PostgreSQL, Redis, application servers, and Celery workers.
- **Built a PydanticAI conversational assistant** that selects tools across property, lease, and financial domains, with server-enforced authorization, privacy controls, and bounded execution. Designed shared application services for future MCP exposure.
- **Designed and documented an agentic ticket-to-PR workflow** integrating Linear, requirements refinement, collaborative planning, task execution, incremental verification, and independent reviews across AI providers; used personally to develop the product.
- **Implemented AI evaluation coverage** for tool selection, answer correctness, authorization, privacy, and resilience, alongside structured answers grounded in application records.

EARLIER EXPERIENCE

APR 2019 – MAR 2022

DATA ENGINEER, AMERICAN EXPRESS

- **Led delivery of internal applications** with business and engineering stakeholders; modernized a legacy monolith into Java/Spring microservices and automated Jenkins CI/CD.
- **Designed relational data solutions** across MySQL and Oracle to support enterprise workflows and reliable data operations.

NOV 2018 – JUN 2019

ASSISTANT PYTHON TEACHER, UNIVERSITY OF ARIZONA

- **Co-instructed Python**, data analysis, and web development courses.

SEP 2018 – APR 2019

DEVELOPER / DATA ANALYST, FOUNDATION FOR BLIND CHILDREN

- **Built backend systems**, data ingestion, and Python reporting for a five-person startup initiative.

2013 – 2018

DATA ARCHITECT, AMERICAN EXPRESS

- **Served as an embedded architect** across transactional application teams, designing normalized logical and physical data models in ER/Studio for regulatory reporting and third-party lifecycle management.
- **Led ERD and data-model reviews**, translated designs into database scripts, and deployed schema changes as a DBA; defined data standards and dictionaries for consistency across teams.

EDUCATION

BS, Computer Information Systems — DeVry University, 2014

Data Science Certification — Galvanize, 2018