FRANK GOMEZ

Principal Data Systems Engineer | Control-First Architecture | Decision Infrastructure

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POSITIONING SUMMARY

Principal-level data systems operator specializing in architecting and governing complex, high-leverage systems under real constraints. Designs for control, observability, bounded execution, and long-term correctness over short-term feature velocity. Owns cross-system ambiguity end-to-end: definition → constraint modeling → execution → rollback-safe operation.

OPERATING POSTURE

- Control-first, evidence-driven system design
- Explicit ownership, traceable decisions, reversible change
- Failure-aware architecture with bounded blast radius
- Signal integrity prioritized over feature throughput
- Operates fluidly between executive framing and deep technical inspection

CONTROL ASSUMPTIONS

- Systems are untrustworthy without direct observability
- All material decisions must be attributable and auditable
- Rollback is a first-class capability
- Automation operates within explicit authority bounds
- Silent failure is treated as active risk

EXECUTIVE CONTROL LAYERS

1. Architecture & Platform Governance: Boundaries, coupling, failure domains

2. Data & Decision Infrastructure: Signal production, validation, correctness under load

3. Operational Control Surfaces: Human visibility and safe intervention

4. Reliability & Incident Governance: Detection, containment, recovery

5. Automation & Delivery Systems: Gated, auditable, rollback-aware change

6. Infrastructure & Runtime Stewardship: Isolation, scaling, failure containment

7. AI-Augmented Systems: Bounded autonomy with auditability and evaluation

SYSTEM ARCHITECTURE & PLATFORM DESIGN	PHP · Python · Bash/Shell · MVC · REST APIs Service Boundaries · Dependency Isolation Modular Design · JSON · Event Triggers Interface Stability · High-Availability Design
DATA, STREAMING & DECISION INFRASTRUCTURE	MySQL · PostgreSQL · MQL4 · Win-Power Automate Anomaly Detection · ETL · ELT · Data Modeling Schema Versioning · Data Validation · Time-Series Design · Business Logic & Signal Processing Pipeline
OPERATIONAL CONTROL SURFACES & DASHBOARDS	React · Request Tracing · JavaScript · Tailwind CSS Grafana · Admin Consoles · Control Panels · KPI Dashboards · Drilldown Views · Structured Logging Highcharts · Application Monitoring
OBSERVABILITY, RELIABILITY & INCIDENT GOVERNANCE	Rollback · Structured Logging · Health Checks Service Reliability Standards · Prometheus Incident Response · Alert Routing

AUTOMATION & DELIVERY SYSTEMS	GitHub · GitLab · CI/CD · Deployment Pipelines Cron · Job Schedulers · Workflow Engines Runbooks · Policy Gates · Rollback Automation Change Control · Artifact Versioning · Node.js
INFRASTRUCTURE & RUNTIME STEWARDSHIP	Linux · Windows Server · VMware · ESXi · vCenter Fleet Ops · Docker · RHEL · Cloud Networking Load Balancers · DNS · cPanel/WHM · VPS Clusters Virtualized Infrastructure Management

CORE CAPABILITIES

- Architect distributed systems with explicit control boundaries
- Build decision-grade data pipelines with latency and integrity guarantees
- Design operator dashboards as decision instruments, not status walls
- Implement safe automation with encoded invariants and rollback paths
- Lead incident response and institutional reliability improvements
- Govern infrastructure lifecycle with predictability and cost discipline
- Embed AI systems with bounded authority and evaluable outputs

ROLE FIT

- Principal / Staff engineering roles with cross-system ownership
- Founding or scaling CTO mandates
- Reliability-critical, regulated, or high-risk environments
- Organizations where long-term system integrity outweighs short-term velocity

PROFESSIONAL EXPERIENCE

SOURCE SYSTEMS

Data Platform Engineer

2020 – Present

• Designed and maintained backend systems supporting transactional data processing and analytical reporting workflows

• Architected MySQL, MS SQL Server, and PostgreSQL schemas with explicit consistency boundaries, versioned migrations, and production-safe change management

• Built operator dashboards and telemetry interfaces using custom PHP backends and JavaScript-based UI layers

• Developed data processing routines for aggregation, KPI materialization, anomaly monitoring, and structured reporting

• Implemented structured logging, query performance tuning, and deterministic debugging workflows to eliminate silent failure modes

• Automated deployment and environment configuration across VPS/cloud infrastructure and Docker-based runtimes

• Established monitoring, recovery procedures, and operational safeguards to maintain data correctness under live load

• Owned full lifecycle system delivery: schema design, backend implementation, deployment, monitoring, and iterative optimization

SOURCE ENTERPRISES

Lead Application Engineer

2014 – 2020

• Designed and delivered full-stack PHP/MySQL web applications for client-facing businesses

• Built dynamic form-processing systems with validation logic, conditional workflows, file handling, and persistent relational storage

• Developed multi-user platforms with authentication, session management, and role-based access controls

• Created administrative dashboards for customer management, submission tracking, reporting, and operational workflow management

• Modeled and maintained relational database schemas supporting transactional integrity and reporting accuracy

• Optimized backend queries and application performance under live user usage

• Implemented responsive front-end interfaces using JavaScript and modern CSS frameworks

• Managed deployment environments, hosting configuration, server troubleshooting, and production debugging

• Translated business requirements into technical architecture and iterative production releases

ROCHESTER ENTERPRISES

Systems Developer

2012 – 2015

• Designed and maintained internal web-based dashboards for pharmaceutical distribution tracking, inventory visibility, and financial reporting.

• Developed database-driven reporting interfaces with filtering, reconciliation workflows, and export capabilities for operational oversight.

• Built and maintained relational data models supporting order tracking, compliance documentation, and transaction history.

• Implemented role-based access controls and secure data handling across internal administrative systems.

• Optimized backend queries and application performance to improve reporting speed and operational visibility.

IEQUITY CORP

Chief Technology Officer – E-Commerce & Regulated Payments Platform

2013 – 2014

• Defined and led the architecture of a regulated online payment and transaction processing platform, including transaction lifecycle design, state handling, and operational workflows

• Directed integration of third-party payment gateways and processing services, establishing transaction validation, reconciliation logic, and failure-handling strategies

• Designed internal reporting dashboards for transaction monitoring, settlement reconciliation, and executive financial visibility

• Oversaw infrastructure provisioning, deployment strategy, and production reliability during active commercial operations

COMPLIANCE FOUNDATION

Chief Creative Officer / Data Systems Lead – International Financial Platforms

2010 – 2013

• Designed and directed development of cross-border financial compliance systems supporting international clients across regulated jurisdictions

• Built data-driven operational interfaces for document workflows, risk categorization, and compliance reporting

• Developed structured data models and secure application layers enabling auditability and jurisdiction-specific policy enforcement

• Delivered executive-level system design presentations and technical proposals for financial institutions exploring digital asset and international banking workflows

EDUCATION

California State University, San Bernardino
Computer Science & Information Systems

RELATED ARTIFACTS

This document is the **primary control-oriented summary**.
For deeper inspection, the following artifacts are intentionally provided:

Detailed Control Architecture & Technology Surface Resume

A comprehensive architectural view of the systems I design and govern, organized by control model rather than job title.

- Full governance model across Executive Control Layers (architecture, data, operations, automation, infrastructure, AI)
- Explicit technology surface mapping — platforms, runtimes, tooling, and decision infrastructure
- Structured execution model: operating profile, system themes, competencies, and inspection anchors

This document represents the complete structural view behind the concise resume.

→ ***Control Architecture Resume***

Operating Principles & Proof: Case Studies (0–7)

Applied system narratives demonstrating how control, governance, and decision integrity operate under real-world pressure, ambiguity, and failure conditions.

- Seven structured case studies spanning architecture, automation, reliability, and intelligence layers
- Each case focuses on a specific control dimension rather than general storytelling
- Includes cross-case synthesis to surface recurring structural patterns

These cases show how the control model manifests under real operational constraints.

→ ***Operating Principles & Proof***

Structured System Resume

A structured resume-format presentation of system ownership, scope, and operating posture, designed for recruiter and hiring-manager review.

- Organized in conventional resume sections for fast scanning
- Emphasizes responsibility scope, and system-level impact
- Frames control architecture within recognizable role expectations

This artifact provides a familiar entry point for standard hiring workflows while preserving the integrity of the operating model.

→ ***Structured Systems Resume***

Historical Portfolio Resume Archive

Two previously published resume artifacts reflecting earlier leadership roles in design, marketing, and systems strategy.

- Structured visual formats with full portfolio integration
- Design-forward presentation and narrative positioning
- Cross-functional leadership across product, brand, and execution

These materials represent prior career phases and are provided for historical and structural context.

→ ***Resume Archive***

CLOSING

This document is a condensed control-oriented profile. Detailed artifacts are available for deeper technical or narrative inspection.