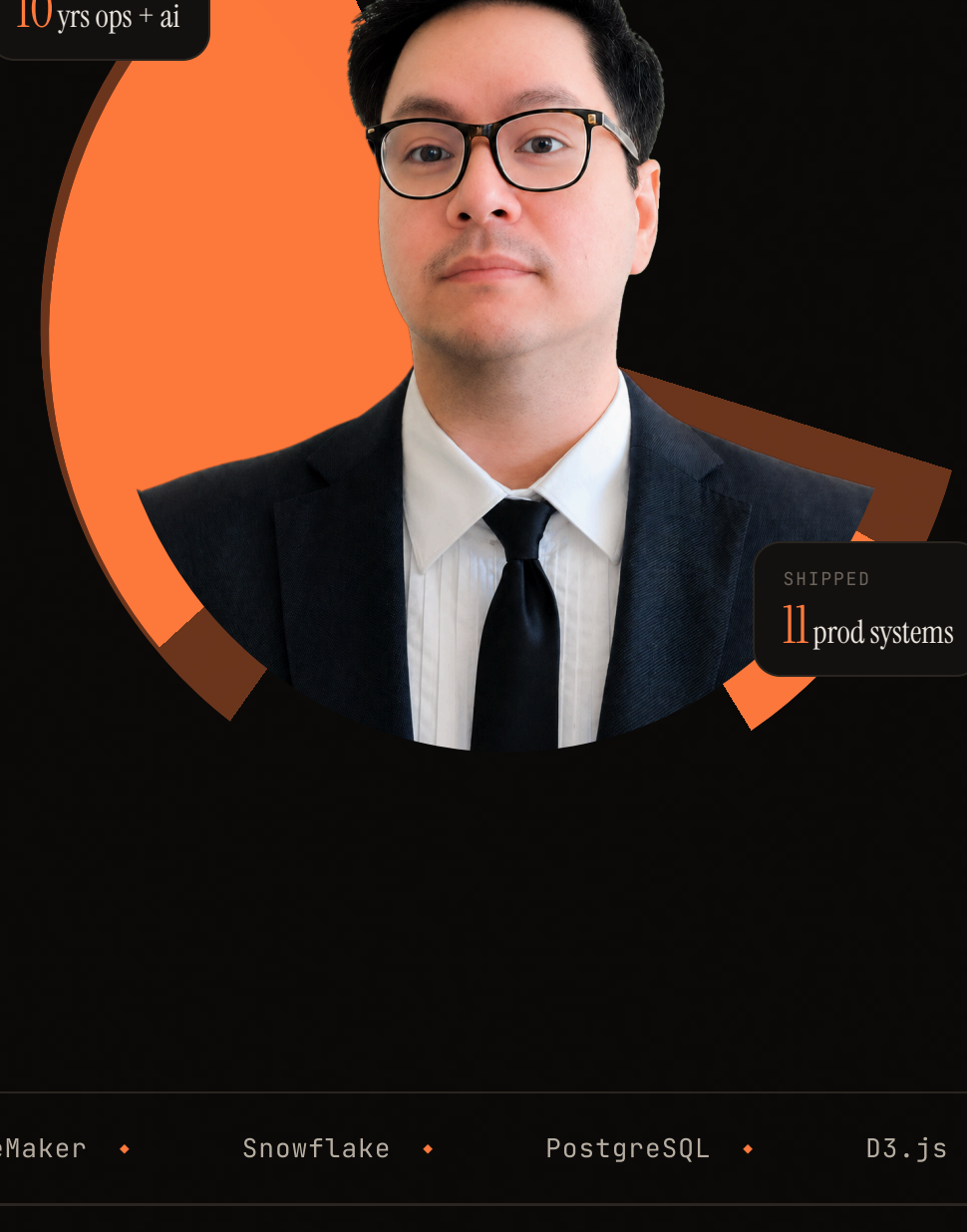


AVAILABLE FOR AGENTIC AI WORK - EST. 2024

# Hi! I'm Rob. An AI Engineer.



I'm Rob Dalida — an AI Engineer on the CX AI team at Frontline Education. I own production AI systems end to end: data, model behavior, deployment, monitoring, and the cross-functional decisions that make them useful.

ROLE: AI Engineer III | EMAIL: robertdalida@gmail.com | FOCUS: Agentic workflows

TypeScript | Next.js | FastAPI | AWS Lambda | AWS Bedrock | AWS SageMaker | Snowflake | PostgreSQL | D3.js | ReactFlow

## 01 / ABOUT The bridge.

DOMAIN - ENGINEERING

I spent years inside the messy reality of *school-based Medicaid claiming* — IEP documentation, compliance, client operations, the workflows that software is supposed to make easier. Now I build the AI systems that actually do.

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// SIGNALS
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OWNERSHIP	End-to-end AI - data, model, deploy, monitor
ARCHITECT	System direction - propose and drive decisions
STANDARD	Reusable patterns - evals, pipelines, tooling
REACH	Cross-functional - Support, Product, Legal, GTM, Services

## 02 / OUTCOMES Numbers that moved.

MEASURED, NOT CLAIMED



## 03 / ACTIVITY Work you can't always see.

PRIVATE REPO - 2023-2024



## 04 / OPERATING SCOPE Beyond the title.

AI ENGINEER III - STAFF-CALIBER SCOPE

My title is AI Engineer III. The work has grown into broader system ownership: defining direction, creating reusable AI patterns, and helping cross-functional teams turn hard ambiguity into production workflows.

<p>// SYSTEM OWNER</p> <p><b>Data to monitoring.</b></p> <p>Own the whole AI path: source data, model behavior, deployment, production checks, and iteration after launch.</p>	<p>// ARCHITECTURE DRIVER</p> <p><b>Direction, not just delivery.</b></p> <p>Propose architecture, evaluate tradeoffs, and push decisions that make systems safer, reusable, and easier to operate.</p>	<p>// SRO MULTIPLIER</p> <p><b>Patterns others can reuse.</b></p> <p>Standardize evaluation metrics, repo harnesses, agent workflows, and pipeline practices so teams can move faster with less guesswork.</p>	<p>// CROSS-FUNCTIONAL LEAD</p> <p><b>Hard problems across teams.</b></p> <p>Partner across Support, Product, Legal, GTM, and Services to translate business pressure into practical AI systems.</p>
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## 05 / SELECTED WORK Things I've built.

PRODUCTION - 2024-2024

<p>— KNOWLEDGE GRAPH</p> <p><b>Insight Mesh</b></p> <p>An AI knowledge graph builder that ingests 600+ Learning Center articles, embeds and themes them with OpenAI, and surfaces missing links to optimize content for AI retrieval and support deflection.</p> <p>OpenAI   Semantic Embeddings   D3.js   Airtable   Next.js</p>	<p>— VESPAE BUILDER</p> <p><b>Node Canvas</b></p> <p>A ReactFlow drag-and-drop workflow builder for data transformation — supporting Medicaid Cost Report calculations and no-code-style processing pipelines.</p> <p>ReactFlow   TypeScript   Modular Nodes</p>
<p>— ML PLATFORM</p> <p><b>ML Studio</b></p> <p>A Machine Learning platform for expense classification — datasets, training/eval concepts, model registry patterns, and a playground for testing classification logic.</p> <p>SageMaker   S3   Python   FastAPI</p>	<p>— COMPLIANCE ENGINE</p> <p><b>Special Programs</b></p> <p>A nationwide compliance engine that sources state and federal regulatory documents, translates them into postarbitrage, and helps product and engineering create business rules.</p> <p>Python   AWS Bedrock   React</p>
<p>— AI OBSERVABILITY</p> <p><b>Omni Logs</b></p> <p>Real observability for Omniclient — anomalies, retrieval behavior, guardrails, and incidents in a single operational surface the CX-AI team can open every morning.</p>	<p>— PIPELINE INTELLIGENCE</p> <p><b>Pathfinder</b></p> <p>A GTM and Sales pipeline intelligence platform that ranks accounts, identifies expansion opportunities, and highlights clients with upsell potential.</p>

## Automations I've shipped.

WORKFLOW REMOVAL | COMPLIANCE | OPERATIONS

<p>— COMPLIANCE</p> <p><b>PII Redactor</b></p> <p>Production Zendesk SSN redaction with scanner/redactor phases, dry-run safety, backups, daily Lambda automation, and stakeholder reporting. Cleared an 88-ticket / 180-day backlog at launch.</p> <p>AWS Lambda   EventBridge   Zendesk</p>	<p>— LEGAL AUTOMATION</p> <p><b>COI Automation</b></p> <p>An AWS-based Certificate of Insurance pipeline that replaced an annual manual legal workflow with secure storage, scheduled processing, audit trails, and personalized email + PDF delivery.</p> <p>AWS   S3   EventBridge   SES</p>	<p>— OPS AUTOMATION</p> <p><b>OKR Prep</b></p> <p>A browser-local workflow for cleaning, normalizing, validating, and previewing OKR import files before they move into downstream planning systems.</p> <p>CSV   Validation   Preview</p>
<p>— LEARNING OPS</p> <p><b>Docebo User Provisioning</b></p> <p>An automation path for provisioning and provisioning learning-platform users, reducing manual account setup work and improving consistency across imports.</p> <p>User Import   Validation   LRS Ops</p>		

## AI Infrastructure I've standardized.

EVALS - AGENTS - HARNESSES - REUSABLE KNOWLEDGE SYSTEMS

<p>— EVAL QUALITY</p> <p><b>Resolution Cards</b></p> <p>Structured knowledge extracted from solved tickets. Lifted mean relevancy 0.912 → 0.976, faithfulness 0.935 → 0.963, and eliminated relevancy failures from 16.7% → 0%.</p>	<p>— SECURITY</p> <p><b>Snyk MCP</b></p> <p>Connected Snyk MCP to Codex for AI-assisted triage, remediation, verification, and rescans. In 5 days, dropped findings 468 → 170 and cleared all 10 criticals.</p>	
<p>— AGENTIC</p> <p><b>Auto-Research Loop</b></p> <p>A governed loop that scores knowledge quality, proposes one bounded change, reruns deterministic eval, and keeps it only if quality improves — otherwise restores prior state.</p> <p>Codem   Eval Harness   Markdown   Source-Grounded</p>	<p>— AGENTIC HARNESS</p> <p><b>Repo Agentic Harness</b></p> <p>A reusable repo contract for AI-assisted engineering: clear entrypoints, ownership boundaries, verification commands, secret restores conditions, and safe handoff rules.</p> <p>Codem   Verification   AGENTS.md</p>	
<p>— KNOWLEDGE INFRASTRUCTURE</p> <p><b>LLM Wiki</b></p> <p>A markdown knowledge-base pattern where raw sources stay immutable, synthesized pages stay maintainable, and agents can navigate durable context without vector-first complexity.</p> <p>Markdown   Indexing   Source Browsing</p>	<p>— AGENT PLATFORM</p> <p><b>Mastra Agents</b></p> <p>Agent workflows for routing tasks, preserving context, and turning repeated AI work into reliable, inspectable execution paths instead of one-off prompts.</p> <p>Agents   Workflows   Observability</p>	<p>— REPO KNOWLEDGE</p> <p><b>Repo Wiki</b></p> <p>A Codex-native workflow that turned real Frontline repositories into browsable, refreshable documentation, including 62 markdown pages across 3 repos.</p> <p>Codem   Docs   Repo Maps</p>

## 06 / PILOT PUBLISH What I've learned.

FIELD NOTES - EXPERIMENTS - REUSE

<p>— KNOWLEDGE SYSTEMS</p> <p><b>Creating a Self-Maintaining Knowledge System</b></p> <p>A markdown-grounded markdown wiki pattern for keeping internal documentation structured, reviewable, and easier to improve over time.</p> <p>Codem   Markdown   Knowledge Ops</p>	<p>— AI PRODUCT PATTERNS</p> <p><b>How Codex Skills Recreated a SaaS-Style AI Product</b></p> <p>A repo-wiki workflow that turned real Frontline repositories into browsable, refreshable documentation without needing a separate AI SaaS tool.</p> <p>Codem   Skills   Repo Wikis</p>
<p>— EVAL-DRIVEN IMPROVEMENT</p> <p><b>AI Auto-Research Loop Improves Retrieval Quality</b></p> <p>A governed loop that proposes one bounded knowledge-base change, scores it, and keeps only improvements that pass deterministic checks.</p> <p>Codem   Eval   Rollback</p>	<p>— SUPPORT QUALITY</p> <p><b>Resolution Cards Improve AI Support Response Quality</b></p> <p>A test of structured knowledge from solved tickets, showing higher relevancy and faithfulness than documentation-only retrieval.</p> <p>ChatGPT   Claude   Support Evals</p>
<p>— AGENTIC HARNESS</p> <p><b>Agentic Harness for Safe, Verifiable Repo Work</b></p> <p>A reusable repo contract for ownership, verification commands, secret boundaries, and safer AI-assisted engineering execution.</p> <p>Codem   Repo Harness   Verification</p>	<p>— WORKSPACE DESIGN</p> <p><b>Harness Engineering: Structuring Workspaces for AI Agents</b></p> <p>A broader workspace model that gives agents clear entrypoints, validation paths, and escalation rules across repo and non-repo work.</p> <p>Codem   Github Copilot   Workflows</p>
<p>— SECURITY REMEDIATION</p> <p><b>Snyk MCP + Repo Harness Turn Codex into a Security Teammate</b></p> <p>A live remediation loop that moved scanner findings through triage, fix, verify, and rescans inside a guarded repo workflow.</p> <p>Codem   Snyk MCP   Security</p>	<p>— AGENT ORCHESTRATION</p> <p><b>Improve Token Usage with Agent Orchestration</b></p> <p>A specialist-agent routing pattern that reduced token usage while preserving the feeling of one visible assistant experiences.</p> <p>Codem   Claude   Routing</p>

## 07 / TRAJECTORY The path here.

099 - AI ENGINEER III

<p>2025 - NOW FRONTLINE EDUCATION</p> <p><b>AI Engineer III</b> Customer Experience AI - CX-AI</p> <p>Own end-to-end AI systems from the data through model behavior, deployment, monitoring, and iteration. Drive architecture decisions, standards evaluation and tooling patterns, and partner across Support, Product, Legal, GTM, and Services on hard AI problems.</p>
<p>2022 - 2025 FRONTLINE EDUCATION</p> <p><b>Medicaid Services Manager</b> School-based claiming - operations</p> <p>Owned IEP documentation, claiming workflows, compliance, and client operations. Saw firsthand where software helps and where it gets in the way — that perspective is now my engineering compass.</p>
<p>2020 - 2022 FRONTLINE EDUCATION</p> <p><b>Medicaid Services Team Lead</b> Medicaid services - team leadership</p> <p>Led service operations across Medicaid workflows, supported team execution, and helped translate client needs into repeatable operational patterns.</p>
<p>2018 - 2020 FRONTLINE EDUCATION</p> <p><b>Medicaid Client Manager</b> Medicaid services - client operations</p> <p>Managed Medicaid client relationships and day-to-day operational support, building the domain foundation that later shaped my AI engineering work.</p>

**Building/Designing production AI systems and agentic workflows. Let's connect.**

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