Frank Chan Jimenez

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LANGUAGES and TECHNOLOGIES

Languages: Golang, Python, Java, JavaScript/Node.js, SQL, GraphQL, HTML/CSS
AI/ML & Agentic: LangGraph, OpenAI, Claude Code, ChatGPT, MCP, Agentic Orchestration, RAG, Prompt Engineering
Data & Infrastructure: Databricks, Kafka, PostgreSQL, MongoDB, SQLite, Redis, Data Pipelines, ETL, Docker, Kubernetes (EKS), AWS, GCP
Frameworks & Tools: gRPC/Protobuf, React, Django, Flask, Datadog APM, Splunk, Helm, Github Actions, Gitlab CICD, Ansible, Vault, Consul

EMPLOYMENT

Senior Software Engineer (Acting Staff Engineer), Platforms Zillow   December 2020 – Present

- Architected and delivered an agentic orchestration platform powering AI-driven workflows across 30+ teams, enabling Zillow's primary revenue pipeline connecting 50M+ consumers to real estate professionals annually
- Designed and built a multi-channel communications platform (SMS, email, in-app, agentic) with unified data substrate leveraging Databricks pipelines, processing 1B+ messages/year across Zillow, Trulia, StreetEasy, and HotPads
- Led cross-organization AI adoption strategy across Zillow Group, driving alignment between Data Product and Engineering Platform teams on a cohesive technical roadmap for AI integration
- Spearheaded migration of 100+ distributed services from Rancher-managed Kubernetes to EKS, defining platform standards, CI/CD pipelines, and observability (Datadog, Splunk) adopted org-wide by 200+ engineers

Tools: Golang, Python, Kubernetes, EKS, gRPC, Protobuf, Databricks, Kafka, Gitlab CICD, Datadog APM, Splunk, AWS, Vault, Consul

Software Engineer, Platforms and Architecture   Illuminate Education   April 2018 – December 2020

- Architected Golang platform services at 6,000+ req/sec peak, serving 2,000 districts and 15M+ students
- Shipped CD pipeline and developer tooling (Docker, Helm) adopted by 200+ engineers, cutting deploy time 60%
- Built automated multi-tenant provisioning with Ansible and GCP, reducing onboarding from days to minutes

Tools: Golang, Docker, Kubernetes, Helm, Ansible, Ansible Vault, Rundeck, Auth0, CircleCI, Github Actions, GCP, AWS, Vault

Physics Data Researcher, Dr. Petasis   Carnegie Mellon University   June 2015 – May 2016

- Designed and constructed instrumentation cavity for Carnegie Mellon's Q-Band E.P.R. Machine
- Developed Python computational models for Helmholtz Coil phenomena, adopted by researchers at two universities

Tools: Python, NumPy, Pandas

Open Source Projects

[OpenAgent](), Agentic Design Pattern Catalog

- Framework-agnostic pattern catalog for architecting LLM-powered autonomous systems - agents that reason, use tools, remember, and self-correct
- Covers 30+ patterns across agents, memory, orchestration, reasoning, tools, output, evaluation, and anti-patterns

[OpenMem](), Deterministic Memory Engine for AI Agents

- Built graph-based memory engine using BM25 lexical search, spreading activation, and competition scoring - no vectors, no embeddings
- SQLite-backed Python library with Claude Code plugin, web UI, and published on PyPI

[drift](), Database Migration Tool

- Built open-source Flyway alternative in Go: undo, dry-run, cherry-pick, drift detection, schema diff, linting, all free
- Supports PostgreSQL, MySQL, SQLite with embedded web UI dashboard; distributed via Homebrew and Docker

[mdcat](), Terminal Markdown Pager

- Built open-source Flyway alternative in Go: undo, dry-run, cherry-pick, drift detection, schema diff, linting, all free
- Supports PostgreSQL, MySQL, SQLite with embedded web UI dashboard; distributed via Homebrew and Docker

EDUCATION

M.S. in Software Engineering, GPA: 3.85	**California State University, Fullerton**	**January 2017 – May 2018**
B.S. in Physics	**Allegheny College**	**August 2012 – May 2016**