

Founding Engineer

Location: San Francisco, CA, on-site

Type: Full time

Compensation: \$140K base, 1.5% equity

About Invariant

Invariant AI builds autonomous agents that accelerate regulatory compliance for mission-critical industry. Our engineers deploy into the customer's team and own the regulatory process end to end, from the first determination through to filing, with the agents doing the work underneath.

The problem is specific. A satellite operator gets the hardware built and then waits on paper. An FCC Part 25 grant for spectrum. A Part 5 experimental licence for the test campaign before that. An FAA Part 450 licence for the launch. A NOAA licence if a camera points down. An ITAR or EAR determination before a single component crosses a border. Each one runs to thousands of pages of narrative, orbital debris analysis, link budgets and citations into rules drafted before anyone had heard of a 100-satellite constellation. A lead systems engineer loses something like 18 hours a week to it, and outside counsel still bills six figures per spacecraft. Our customers get that down to three or four hours a week and reach the pad sooner.

About the role

You'll be one of the first engineers at Invariant, and you'll own the agents that draft, check and file regulatory submissions. This is production engineering, not research. The code ships to customers, and it ships on a measured improvement against an eval, not on plausibility.

You'll work directly with both founders, sit in customer working sessions, and make architecture calls that the rest of the team will build on for years. What gets built, and in what order, is partly your decision.

Responsibilities

- Design and own the agent architecture that reads a regulatory corpus and drafts filing sections with citations that resolve back to the rule text
- Set the eval practice for the team: behavioural evals written before the feature, and used to decide whether a change ships
- Build retrieval over large rule corpora, including chunking, embeddings in pgvector and reranking, and know when each one earns its cost
- Deploy with customers, run the agents on their data, and turn what you find into fixes between one working session and the next
- Build and run production Python services: FastAPI, background workers, streaming progress into a Next.js interface
- Decide where the agent should stop and hand back to a human, and design the failure modes and refusal behaviour around that
- Set engineering standards, review code, and help hire the engineers who come after you



Requirements

- Several years shipping production software, with at least one system you owned end to end in front of real users
- You've built something with LLMs that survived contact with a paying customer. A demo doesn't count
- Strong Python. Comfortable with async, type hints, and a codebase where `mypy --strict` is a merge gate
- Enough statistics to tell a real improvement from noise on a small eval set
- Comfortable in front of a customer, including the meeting where the agent got something wrong
- Careful with sensitive material
- Full time, in person in San Francisco

Nice to have

- Time at a satellite operator, launch provider, space agency, or on a university cubesat or rocketry team
- Background in RF, orbital mechanics, or guidance and control
- Retrieval work deep enough that you know when reranking helps and when it does nothing
- Early-stage startup experience, ideally as one of the first few engineers
- Open source contributions we can read

Compensation and what you get out of it

- \$140K base salary
- 1.5% equity
- Relocation to San Francisco covered
- Direct work with both founders. There's no layer between you and the decisions
- Ownership of the core system, and a say in how the engineering team grows
- Your name on work that ships to companies putting hardware in orbit

Equal opportunity

Invariant AI is an equal opportunity employer. We do not discriminate on the basis of race, colour, religion, sex, sexual orientation, gender identity, gender expression, national origin, ancestry, citizenship or immigration status, age, disability, medical condition, marital status, veteran status, or any other characteristic protected by federal law, by California's Fair Employment and Housing Act, or by San Francisco ordinance.

How to apply

Email jobs@invariant-ai.com with the subject line "Founding Engineer". Skip the cover letter.

Send us the system you're proudest of having built, a repository or a link, plus one paragraph on what broke in production and what you did about it. We reply to everyone.

