

# VALERIE KIM

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## SUMMARY

AI-focused full-stack engineer building evaluation pipelines, agentic systems, and production integrations. Created a novel LLM reasoning benchmark evaluated across 5+ frontier models. Provisioned hardened cloud infrastructure for a startup. Former franchise owner (coding academy, 100+ students).

- AI/Eval: Google AI Studio, InspectAI, PyTorch, HuggingFace Transformers, DSPy, Pydantic, RAG, prompt engineering
- Product: Python, TypeScript, React/Next.js, Tailwind, Node, C#
- Infra: Docker/Podman, Tailscale, Caddy, Linux, Hetzner, AWS

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## EXPERIENCE

### Fractal Tech AI Accelerator · [fractalbootcamp.com](https://fractalbootcamp.com)

New York, NY

Engineering Fellow

Sep 2025 — Feb 2026

- 1300+ hours of intensive engineering across 11 projects including a novel AI evaluation benchmark, a math education game, and a 2-week startup externship. Mentored by senior engineers from Google, Netflix, and Stripe.
- **DistinctionBench (AI evaluation research)**: Designed and implemented a novel LLM benchmark testing diagrammatic/spatial reasoning using Laws of Form calculus. Evaluated 5+ frontier models (GPT 5.2, Claude Opus/Sonnet 4.5, Gemini 3 Pro/Flash) via InspectAI.
  - Discovered notation dialect significantly affects model performance — Opus 4.5 accuracy ranged 40–100% depending on bracket representation. \$1000 in compute across 2000+ evaluation samples. [repo](#) · [demo video](#)
- **House of Bao**: Built a mobile-first puzzle game teaching algebra through James Algebra — a diagrammatic representation of K-12 math. React/PWA, PixiJS, custom rules engine. Ideation to playable demo with user playtests in 2 weeks. [play](#) · [repo](#)

### Stage 11 Agentics · [stage11.ai](https://stage11.ai)

Remote

Founding Engineer

Feb 2026 — May 2026

- Built and operated an agentic pipeline (Subterra) to process public UCC lien filings, identify counterparties, and generate targeted outreach. Filtered 800 liens to 52 high-quality targets. Orchestrated multi-tool workflow (Apollo, Clay, OSINT) with human-in-the-loop review.
- Provisioned self-hosted services stack (16+ services) across prod/staging on Hetzner behind Tailscale VPN, on immutable Fedora using rootless Podman Quadlets. 3-2-1 backup with automated disaster recovery testing.

### Zo Computer · [zo.computer](https://zo.computer)

Brooklyn, NY

Full-stack Intern

Oct 2025 — Nov 2025

- Reduced worst-case agent tool error payloads from ~50,000 tokens to <100 with structured truncation. Standardized error handling across tools. Result: faster retries, lower LLM cost, fewer workflow failures.
- Delivered three integrations (Linear, Dropbox, Airtable) end-to-end for custom agent, including UI modals and backend tool actions; added analytics, tests, and docs.

### Environment and Climate Change Canada

Calgary, AB

Software Developer Co-op

May 2023 — Jul 2024

- Supported multi-app Dynamics 365/Power Platform (100+ users); closed 40+ tickets across C#/JS/Dataverse. Refactored 130+ JS files for cloud migration; built RPA flows bridging APIs and legacy.

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## SELECTED PROJECTS

- **Reverse Jeopardy Question Generator** · Fine-tuned GPT-2 and T5 on 127K samples to generate factual trivia clues from sparse inputs. HuggingFace Transformers + PyTorch. Custom evaluation suite. · [repo](#)

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## EDUCATION

### University of Calgary

Calgary, AB

BS in Computer Science

Dec 2024

BA in Communications and Media Studies

Dec 2024

Created with Emacs 30.2 (Org mode 9.8)