

Cissy Chen

Staff Software Engineer / Tech Lead Manager @ Google

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SUMMARY

- AI super-individual and staff-level platform engineer with 10+ years building large-scale distributed systems, data infrastructure, and AI-native tooling.
- I turn ambiguous, manual, high-risk operations into reliable, self-service automated platforms — and operationalize agentic LLM workflows that multiply my team's throughput.
- Currently lead the BigQuery Trusted Agentic Platform team (10 engineers), driving org-wide platform, reliability, security, and GenAI initiatives.
- Consistent top performer (3× top 4%, 4× top 25% in 7 years tenure at Google).

SKILLS

AI & Agentic Systems: LLM orchestration, agent design & tool-use, eval-driven development, safety guardrails & human-in-the-loop, agent skills / MCP, prompt engineering

Platform & Backend: distributed systems, service / API design, developer platforms, infrastructure-as-code, control-plane design

Data Infrastructure: ELT / ETL pipelines, data warehousing (BigQuery), schema design, data quality & lineage, dashboards & analytics

Reliability & Security: SLOs / error budgets, observability, incident response, privileged access management, compliance (GDPR / ITAR / FedRAMP)

Leadership: people management, program leadership, technical strategy, hiring & coaching

Languages & Cloud: Java, Python, SQL, C#; Google Cloud Platform

EXPERIENCE

Staff Software Engineer / Tech Lead Manager — Google, BigQuery (Data & Analytics), Kirkland, WA

Feb 2019 – Present · SWE (2019) → Senior SWE (2022) → Staff SWE / TLM (2025)

AI, AGENT SAFETY & DEVELOPER PRODUCTIVITY

- Lead BigQuery's AI-native transformation across an 800+ engineer org.
- Designed the AI risk-based code-review that scores each CL's production risk and enforces policy-as-code.
- Built risk-aware release automation for BigQuery's rollout/rollback system.
- Built agentic **Admin Access control**, replacing manual production actions with peer-reviewed, reusable agent scripts.
- Built an automated **data-classification / PII** system (policy-as-code): 200+ PRs across 6,000+ fields.
- Secured GCP Privacy Working Group approval to connect GenAI agents to production telemetry for debugging and root-cause analysis.

RELIABILITY & PLATFORM ENGINEERING

- Founded and tech-led "**Prod is Lava**", a cross-org **reliability & access-governance** program (across 60 contributors from 6 orgs beyond BigQuery, evolved into a GCP-wide Code Yellow mandate).
- Built a real-time reliability & risk dashboard adopted across GCP.
- Designed and built a **reverse proxy for prod/nonprod traffic isolation**, enforcing a clean boundary between production and non-production environments.
- Led the Code Yellow "global pushes" workstream, regionalizing global dependencies across 10+ services to enable data residency.

SECURITY, PRIVACY & COMPLIANCE PLATFORMS

- Led a 50+ person cross-org program delivering BigQuery's **GDPR data-deletion/retention compliance**, enabling clean external audits at scale.
- Tech-led a 6-engineer team building **ITAR / export-control compliance** software (extensible to **FedRAMP / DoD**) — engineered software-defined, logical boundaries on GCP's shared infrastructure (different from AWS/Azure's)

physically segregated GovCloud), unlocking a \$9B market.

- Led an effort to extend **DoD IL5 (Impact Level 5)** controls to customer metadata under strict federal & defense regulations, securing BigQuery's **IL5 recertification**.
- Engineered compliance coverage across BigQuery's entire data surface — **40 microservices**, OLTP databases, the OLAP warehouse, caches, backups and logs.
- Tech-led a 4-engineer team shipping third-party **identity federation** (OAuth/OIDC/SAML), onboarding 10+ enterprise customers.

LEADERSHIP

- Grew and managed a team of 10 engineers: hiring, performance, and promotions, with high manager-survey scores.
- Founded and led the "Women in Data & Analytics" community (1,500+) for four years.

Software Engineer (Backend) — PLAYSTUDIOS, Inc.

2016 – 2019

- Owned backend for 20+ social-casino titles (~300K DAU, ~\$130K/day): gaming-math algorithms, A/B-test configuration, REST APIs, and AI player-simulation tooling.
- Profiled and re-architected shared libraries for performance.

Software Engineer (Full-Stack) — Midnight Studios, Inc.

2015 – 2016

- Delivered an Xfinity/Comcast interactive TV game end to end (Unity3D + HTML5 motion controller, MySQL, real-time streaming), scaled for high concurrency.

Research Assistant (Computer Vision) — University of Houston

2013 – 2015

- NIH-funded (\$428K) research: multi-Kinect real-time 3D human-body reconstruction and a sensor-based health game. Co-author, Games for Health Journal (PMC5073236).

SELECTED PROJECTS

BigCat Learning Hub — hub.cissychen.com

- Self-built, AI-powered knowledge platform spanning 25+ domains (AI/ML, mathematics, CS-paper deep-reads, system design, philosophy, psychology, history, investing, leadership, parenting, health, art, writing) — one person producing team-scale output via orchestrated agents.
- Flagship features: Thinker Arena "Thinker Roundtable" (Claude / GPT / Gemini debate + synthesis), Deep Research & Deep Reading, Mental Models & Meta-Knowledge, and a Super-Individual playbook.
- Build write-up: [How This Hub Is Built](#) — the fully agent-built content pipeline.

3D Interactive Website — www.cissychen.com

- Designed all content (Photoshop, Maya) and built real-time WebGL 3D rendering with interactive, dynamic media.

EDUCATION

- **M.S., Computer Science** — University of Houston, 2014 · Specialization in computer vision
- **B.S., Computer Science** — East China University of Science and Technology, Shanghai, 2011

PUBLICATION

Debbe T, Dora C, Madhur R, Tanay B, Yuting Z, Cheng C, Yan L., Zhigang D: "Development of a Teen-Focused Exergame," *Games for Health Journal*. PMID: PMC5073236