

Eric J. Humphrey

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Purpose-driven Executive, Architect, Researcher, & Engineer | Developed High-trust, High-performing Teams that Deliver at Pace | Leveraging Data & Al for Planet-Scale Impact

HIGHLIGHTS

Built Inclusive, High-Performing Teams: Hired and mentored diverse engineers across data, ML, and backend; drove high team NPS, resolved performance issues, and scaled strong, healthy cultures.

Led Data Systems at Scale: Shipped web-scale pipelines (Beam, Pub/Sub, Dataflow/Scio), shaped architecture and domain models, and mentored ML, data eng, and data science teams at Google, Spotify, and startups.

Executive-Level Operator: Trusted partner with founders and execs aligning engineering with growth, monetization, and product strategy; technical advisor to five founding CEOs.

Al / ML & Experimentation Expert: PhD in ML (NYU, Yann LeCun); published author (2900+ citations), algorithm innovator with A/B testing experience from scrappy startups to planet-scale infra.

Fluent, Inspiring Communicator: Prolific communicator and storyteller across writing, visuals, and video. Known for clarity, metaphor, and analogy to relate complex ideas to varied audiences.

EXPERIENCE

Fractional CTO | May 2025 - Present

Euphoric Global (Pre-seed HR tech) | 35%

- Strategic support (content, presentations) for key business collaborations (Mercer, Generali).
- Accountable R&D roadmap and technical architecture to support global launch of benefits platform.
- Mentor and coach for product, engineering, and design ICs.

Flourish Community Care (Seed Health-tech) | 35%

- Leveled up planning with sharper OKRs and Series-A milestones; helped prioritize and descope for focus.
- Hired early engineering team, defined technical vision and stack (BigQuery, dbt, hosted Python web app).
- Contributed as a technical IC across ops/provider dashboard, data analysis, and core data pipelines.

Peppy Health (Series-B Healthtech) | 12.5%

- Provided guidance and stability as a key member of the executive leadership team, driving culture and collaboration cross-functionally among key business leaders.
- Shaped and refined R&D objectives, strategy, and roadmap to support new north star goals.

SVP of Engineering | Peppy Health (Series-B Healthtech) | Aug 2023 – April 2025

- Promoted to SVP within the first 6 months, reporting to cofounder-CEO; became cultural anchor and trusted member of executive leadership; successfully managed company demerger in early 2025.
- Scaled a high-performing, inclusive R&D team from 6 to 18, achieving top-tier team NPS and ~40% non-male / ~40% non-white representation.
- Led architecture and hands-on development of a greenfield benefits platform, using Next.js (TypeScript),
 FastAPI, and Google Cloud Run; shipped infosec-compliant, production-ready software on tight timelines.

Tech Lead & Lead Research Scientist | This One (pre-seed Al startup) | May 2022 – June 2023

- Promoted to Tech Lead after 3 months reporting to co-founder CEO, managed a 4-person engineering team, driving team rituals (stand-up, planning, retro) and performance management.
- Developed embeddings-based movie recommendation systems (Python, Gensim) with web-scale movie preference data (MovieLens, Letterboxd) outperforming published benchmarks.
- Implemented "agile ML research" methodology through weeklong research sprints, centralized leaderboard for reproducibility, and a pinned-version deployment model for production integration.

Director of Engineering | eSpark Learning (Series A → B Ed-tech) | Feb 2021 – Apr 2022

- Joined executive leadership to shape cross-functional strategy, unifying sales, marketing, and product teams; tech lead for \$25M private-equity change control in 2021.
- Grew engineering from 5 to 12 team members (50% non-male), created a dedicated data function, and overhauled hiring practices, skill rubrics, and interview practices.
- Prevented \$7M in potential churn by leading the resolution of complex school-network filtering issues for key clients, leveraging technical expertise and managing stakeholder communication.

Staff Research Scientist & ML Engineering Manager | Spotify | March 2016 – January 2021

- Rapidly scaled and led impactful ML teams: grew from an individual contributor to Staff Research Scientist in 9 months, managed interns and new hires, and ultimately became an Engineering Manager driving Ads ML (dynamic audio ads, multi-touch attribution).
- ML leader across the 6,000-person global company, co-founded the Tech Research organization, accelerated ML infra development and adoption via the Machine Learning Working Group (Tony Jebara), published industry research in top conferences.
- Drove advanced machine listening research (chord recognition, beat tracking, vocal detection, source separation) using deep neural networks—shaping key product features (karaoke in Japan, Automix for EDM, Indian language ID) and 3 successful M&A outcomes.

Research Scientist & Team Lead | MuseAmi (Series A Music Ed-tech) | Jan 2015 - Feb 2016

- Promoted to Team Lead within months, hiring 2 engineers and overseeing 3 summer interns, established rigorous R&D practices, including test suite development and real-time debugging.
- Engineered cutting-edge audio processing solutions (polyphonic pitch tracking, bandwidth extension) while completing a PhD, demoing innovations to strategic partners/investors.
- Enhanced Optical Music Recognition (OMR) capabilities by systematically benchmarking subsystem performance, led transition of C/C++ monolith to AWS-based cloud architecture (Lambdas, pub/sub, S3).

Software Engineering Intern | Google Research | Summer 2012

- Pioneered deep learning based music recommendation in C++/Java using pre-Tensorflow technology, processed petabytes of data via performant data pipelines (Map-Reduce, Flume).
- Actively participated in Google Brain research group (Hinton, Sutskever, Goodfellow), sharing and advancing machine learning knowledge and best practices.

EDUCATION

Ph.D. in Music Technology | New York University | 2015

- Dissertation: An Exploration of Deep Learning in Content-Based Music Informatics.
- Studied under Drs Juan Bello and Yann LeCun, Turing Award winner and Al pioneer.

M.S. in Music Engineering Technology | University of Miami | 2009

B.S. in Electrical Engineering | Syracuse University | 2007