

Rachel J Grey · lemming@alum.mit.edu · 617-285-2131

Summary: 25 years of experience, 17+ at Google, as a generalist software engineer and engineering manager. Comfortable with full-stack development; familiar with Java, C++, JS/CSS, etc. Expert in team dynamics and formation, building leadership benches and managing managers. I've contributed at scales up to writing software engineering ladders that affect 60,000 people, working on products with 1B daily active users.

Subject matter expert in logging and analysis, especially user activity logging, schema design, and metrics. Comfortable working with legal departments as well as more typical tech functions. I am always devoted to team well-being, and seek to reduce chaos from both organizations and technical systems.

Experience

Google

Data Science & Engineering for Search — L7 (Senior) Eng Manager

Managed two teams and one working group simultaneously:

Regulatory & Legal Data Eng

Oct 2021 - present

- Founding member & manager of 5-person team in charge of legal pulls supporting various litigation related to Google Search.
- Deposed twice in *United States v. Google LLC*, to explain Search logs processing to the plaintiffs.
- Supported reporting required by major regulation including EUCD, DSA and others.
- Led DMA 5(2) response across my director's 130-person engineering org, from PRD through to successful launch of a compliant solution.

Foundational Logging & Metrics Ecosystem

Dec 2023 - present

- Manager of 7-person team in charge of Search metric infrastructure and user activity logging format.
- Reshaped the team charter to take stewardship of orphaned functionality in user activity logging; handed off work where appropriate, re-engineered team rotations, etc.

Logging and Metrics Alliance Working Group

Jan 2023 - present

- Co-lead of 30-person, 4-stream working group to coordinate across organizations in support of logging correctness and completeness, providing accurate metrics for Google Search.

Software Engineering Ladder — L7 (Senior) Eng Manager

Spring 2019 - present

Volunteered part-time (5% time) in an 8-12 person group of mostly directors, making changes to the leveling requirements of Software Engineer, affecting 60,000 Google workers. Among these:

- Sweeping changes to promote cooperation and disincentivize antisocial patterns in engineering.
- Removed Google's expectation for all L4 SWEs to reach L5, saving hundreds of jobs. This helped Google pivot out of rapid-growth mode and to a more sustainable staffing model.

Search Serving Infrastructure — L7 (Senior) Eng Manager

Jan 2021 - Oct 2021

- Briefly managed a team of 15 direct reports while helping one of them shift from TLM to TL. Oversaw two promotions, one shift into management, one shift to part-time and a large number of project transitions.
- After my director left the company, helped organize and run a summit to pivot the team from infrastructure to “user journeys”.

Search Logging & Analysis — L6 (Staff) Software Engineer, L7 Eng Manager July 2012 - Dec 2020

- Built a team up from 3 software engineers to a 2-level 32-person organization.
 - Managed five teams across 3 sites (Cambridge, Chicago, Mountain View)
 - Trained tech leads, mentored new managers; handled hires, transfers, retirements, exits, performance management, compensation planning
 - Overall management philosophy of helping my reports understand the system and make informed decisions within that. Officially transferred to manager role.
- Managed, monitored and oversaw datasets and processing used to drive all logging-driven decisions for Google Search (and, later, Google Assistant)
- Created new data minimization programs. Example: starting to track, monitor and contain log storage for all of Google Search. This effort won a promotion and, in concert with similar programs for other products, saved Google from having to build a new datacenter in 2015.
- Ran several complete refactors of critical logic while keeping data-producing pipelines running daily. Finished all of them 100%.
- Team codebases were primarily in Go, Python, C++.

Image Search — L5 (Senior) Software Engineer

Dec 2008 – July 2012

- Tech lead for internal refactor of large plugin from C++ to Java (3 other people)
- Tech lead for redesign of logging to reflect Instant Search for images (3 other people)
- Contributed as IC for several launches including “Strobe”, Google’s [2010 UI redesign](#)
- Updated the landing page for Google Image Search
- Primarily C++, Java, Javascript and CSS in a Linux development environment.

Blogger — L4 Software Engineer

Oct 2007 – Dec 2008

- Designed, implemented, and launched the Reactions feature, which enabled customizable one-click reader feedback on blog posts. Improved messaging and usefulness of “blog not found” pages. (Java, Javascript)
- Primary owner of the continuous build for 10 months; worked on submission queue infra and release process; participated in pager duty.

Oracle Retail via ProfitLogic acquisition

Oracle Retail — Application Developer 3

Aug 2005 – Oct 2007

- Released a major optimization engine refactor, making it into a scalable and distributed system for use by ProfitLogic’s flagship product. We doubled its rate of throughput, and completely replaced 19,000 lines of Java and XSQL code with 8700 lines of new Java code.
- Led investigation into integrating the core ProfitLogic optimization module with a multidimensional database from another Oracle Retail acquisition; successfully prototyped with full documentation (in C++ on Windows).

ProfitLogic — Software Engineer**July 2004 – Aug 2005**

- QA for a major optimization engine release in fall '04. New Java testing suite replaced a less flexible Python one, and measured code coverage for the first time.
- Implemented algorithms in support of the Oracle Retail markdown, allocation, and purchasing optimization products; developed internal tools for analysis and insight into the behavior of the optimization engine.
- Developed a new interface for interactive use of the optimization engine as an RMI server, which previously had only run in batch mode in WebLogic. Required cross-team collaboration, Java, C++.

Charles River Analytics**Software Engineer 2****June 1999 - July 2004**

- Individual contributor on several projects, mainly AI-based tools for military decision support, for Phase I and Phase II contracts under the Small Business Innovative Research program.
- Lead engineer on long-term internal project, the “Battlefield Viewer”, in C++ and MFC from October 2000 through 2002. Used this viewer in support of several Phase I and Phase II contract deliverables.
- Contributed to design and evaluation of a Bayesian belief network editor that was released commercially in fall of 2004.
- Wrote final reports, users’ manuals, and developer docs; gave presentations to clients.

Education

- MS and BS in Mechanical Engineering, MIT **1999**
- Dale Carnegie Business and Leadership Course (student, then team leader) **2004**