

Andrew Fandrianto

Full Stack ML Engineer & “Engineer’s” People Manager

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SKILLS

- People: Technical Lead Manager for 2+ years. Mentored 20+.
- Computer Languages: C++, Python, Shell, *SQL.
- Dusty Computer Languages: Kotlin, Golang, Java, Scala, Jsonnet, Borgcfg, C, Javascript, C#, R, Matlab.
- Homosapien Languages: Conversant in Indonesian.
- Things: google3, MapReduce++, Jupyter, pandas/sklearn/etc, TensorFlow, Superset, Presto/Trino, Docker, IntelliJ*, AWS, Git, Vim.
- Dusty Things: PyTorch, JAX, AppEngine, Perforce, Eclipse, Maven, Postgres, Kubernetes, Hadoop, Argo, Jenkins, Airflow.

EXPERIENCE

- **Google** Mountain View, CA
Software Engineer, DeepMind 07/2025-present
Software Engineer, Search 05/2024-07/2025
 - AI Product Expansion:
Impact: Improved personalization capability of Gemini 3.0 and applied it to Gemini Chat (Bard) and Google Search.
 - * Gmail Data Source: E.g. where did I get gelato in Rome. Integrated and optimized features to make personal Gmail data available to the LLM, improving answer generation quality based on evaluation feedback.
 - * Retrieval Evaluation Over Personal Corpora: E.g. how much did I spend on tools in 2024. Allowed hillclimbing on real Gmail corpora by automating the imperfect ground truth with Gemini.
 - * Chrome UI Automation: E.g. renew my Ford DMV registration. Overtrained a version of Gemini 1.5 to that executes clicking on web UI elements with a Chrome Extension.
 - Multimodal Modeling:
Impact: Improved image annotation capability of Gemini and applied it to Google Search.
 - * Reinforcement learning for image bounding box annotation: Created train/eval datasets and associated reward code to improve visual question answering for Gemini 2.5 training.
 - * Interactive Diagrams on Search: E.g. photosynthesis. Created and pushed a few methods to automatically annotate and animate diagrams with Gemini. No model training.
 - * Lens: Ran some random data ablations for image+text input for Gemini 1.5 post-training.
- **Apple** Cupertino, CA
Machine Learning Engineering Manager, AIML 05/2021-05/2024
Machine Learning Engineer, AIML 07/2019-04/2021
 - Applied machine learning with external impact:
Impact: Improved quality of 7+ domains through 30+ statistically significant launches, about $\frac{3}{4}$ requiring ML. Led and contributed to search quality projects for Siri, Safari, and Spotlight.
Scope: Directly handled a majority of the end-to-end process: {ideation, privacy review, team management, xfunc collaboration/pitching, goal setting, device ground truth testing, backend migrations, data pipelines, server models, on-device models, eval, debug, launch, landing, metrics, monitoring, automation, postmortems}.
 - * User Feedback: Team and I built a comprehensive, debuggable framework to leverage user feedback. This framework is used by 10+ projects including our team directly and xfunc collaborators.
 - * Web Answers: E.g. [why is the ocean blue]. Improved Web Answers coverage by +xx% relative with models, classic and dense retrieval, query sampling, and practical hacks.
 - Built a team and helped grow the organization: Concurrently managing 7 (max 10) individual contributors. Directly hired 10+. Built and ramped a new team from scratch.
- **Google** Mountain View, CA
Software Engineer, Search Quality 01/2018-07/2019
Software Engineer, Research 07/2014-01/2018
 - Applied machine learning with external impact:
Impact: Led and/or contributed to projects for Search, Google Play, and the TensorFlow ecosystem {ops, TensorBoard}.
Scope: Typically handled these pieces: {data, model, eval, debug, launch, landing}.
 - * Related Answers: E.g. [why does reading on a train make me sleepy]. Text modeling for snippet ranking with BERT++. Led subgroup, mentored incoming engineers, improved xx% of Google Search and Assistant traffic.
 - * Short Answers: E.g. [what is the most abundant gas in venus]. Started cross functional effort between research and product engineering, jointly led subgroup, improved x% of Google Search and Assistant traffic.
 - * Play Store Search: Image modeling for app search quality with ImageNet++. Generated +\$xxM revenue.
 - Kaggle, but in Google:
2nd engineer for frontend/backend for our internal Kaggle website on Flex AppEngine, used by 20+ teams.
Owned datasets for internal/external machine learning research (n*100GB-m*1PB)
github.com/google-research-datasets/wiki-reading

- **eBay** San Jose, CA
Software Engineer *06/2013-06/2014*
- **Language Technologies Institute at CMU** Pittsburgh, PA
Graduate Research Assistant *2011-2013*
- **Microsoft** Mountain View, CA
Software Development Engineer Intern *Summer 2011*
Software Development Engineer Intern *Summer 2010*
- **ITA Software (acquired by Google)** Boston, MA
User Interface Engineering Intern *Summer 2009*
- **UC Berkeley Bioengineering, Professor Dan Fletcher** Berkeley, CA
Researcher @ Berkeley Bioengineering Summer Research Program *Summer 2008*
- **Cisco Systems** San Jose, CA
Software Developer Intern *Summer 2006*

EDUCATION

- **Carnegie Mellon University** Pittsburgh, PA
Master of Language Technologies *2013*
Bachelor of Science in Computer Science *2011*
- **The Harker School** San Jose, CA