

# Andrew Fandrianto

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

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## SKILLS

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- People: Technical Lead Manager for 2+ years. Mentored 20+.
- Computer Languages: Python, Shell, \*SQL.
- Dusty Computer Languages: C++, Golang, Java, Scala, Jsonnet, Borgcfg, C, Javascript, C#, R, Matlab.
- Homosapien Languages: Conversant in Indonesian.
- Things: 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

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- **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

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