Andrew Fandrianto

Full Stack ML Engineer & "Engineer's" People Manager

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EXPERIENCE

- **Apple** — Cupertino, CA
  Machine Learning Engineering Manager, AIML — *2021-present*
  Machine Learning Engineer, AIML — *2019-2021*
  - Applied machine learning with external impact:
    Impact: Improved quality of 7+ domains through 30+ statistically significant launches, about half 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}.
    * <u>User Feedback</u>: 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.
    * <u>Web Answers</u>: 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 — *2018-2019*
  Software Engineer, Research — *2014-2018*
  - 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}.
    * <u>Related Answers</u>: 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.
    * <u>Short Answers</u>: 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.
    * <u>Play Store Search</u>: 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 — *2013-2014*

- **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

Skills

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