I am a software engineer at Google working on improving android's phone app. I grew up along side the field of UX and developed a passion for improving the ergonomics of human-computer interaction. At first I approached the problem from the perspective of UI design, "The Visual Display of Quantitative Information" had quite an impact on me, and showed me how much better our programs can be at talking to humans. Recently I have been more interested in improving that conversation from a different direction, using machine learning to answer questions and surface information that would otherwise be too difficult to communicate. I am transhumanist at heart and believe that we are quickly moving towards a time where the boundary between user and computer will fade. I want to help us get there.

+++ ++ Spark ++ Tensorflow Mathematica Matlab SQL +++ Python +++ Kotlin Java Ruby +++ Photoshop

Google - Dialer Team Software Engineer (2019 - 2022)

Worked on improving the default android "phone" app.

Collaborated with a large team to build the automatic call screening feature.

Worked with one other coworker to prototype a new test framework that is now in use to run the same test suite as unit/emulator/device tests.

Handled client side implementation of the initial i18n pilot for call screen (Japanese support).

Built crowdsourcing flows to collect and process caller ID/tagging information.

Co-inventor of two patents: one has been granted for automatic call screening, the second is related to caller tagging and is still pending.

Working with: java, kotlin, android

Tophatter - Full Stack Software Engineer (2017 - 2018)

Started off working on front end web. Demoed a react version of Tophatter but didn't get support to move forward with it. Learned Rails and transitioned to full stack.

Pitched and worked with a team of 3 to build a collaborative filtering model for product recommendation.

Worked with team of 3 to rebuild product deduplication pipeline from the ground up. Used neural networks to process item features into a few feature vectors, generated candidates using faiss vector similarity search, judged if candidates were actually duplicates using a random forest.

Pitched, designed, and built a human review queue for our model to get ground truth data for product deduplication. This improved the performance of a NN I had set aside before to the point where it replaced the random forest model. Closed the training loop so the system will continue to improve with time.

Infrastructure work on data pipelines. Built service that efficiently tracks recent user-product interactions using ring buffers in redis.

In my final quarter I requested a week to work on web performance and had a big win by fixing viewport rendering: stat sig +6% new user conversion and +4% total revenue on web.

Worked with: rails, coffeescript, python, spark, tensorflow

Pandora - Web Team Engineer (2015 - 2017)

Worked on angular UI for a tool for artists to send messages to their listeners.

Spent last year and a half working on complete react rewrite of web client.

Implemented Pandora Premium subscription tier on web.

Worked with: react, javascript, HTML, CSS

Rdio - Web Team Engineer (2014 - 2015)

Finally learned how to really work effectively in a software development team as an intern here.

Dropped out of school to pursue a full time software engineering position.

Worked on "music feed", the current rdio.com homepage page.

Implemented a user exit survey that collects much more information than before.

Pitched, created, and deployed a viewport tracker for the content on our homepage.

Implemented Rdio Select subscription tier on web.

Upgraded multiple admin pages with better visualizations/UX.

Worked with: javascript(backbone and react), HTML, CSS, SQL, python

Facebook - Site Integrity Team Intern (- 2013)

Worked with content review staff to improve internal tools that had been slowing them down.

Really enjoyed the challenge of making an interface that is intuitive and looks good.

Productivity could have been better, I was afraid of asking for help because I wanted to look smart. I learned from my experience.

Worked with: PHP, HTML, CSS