

# Cora Johnson-Roberson

Engineer with experience in machine learning and backend development.

## Skills

### Languages

fluent Haskell, Python, JS

proficient Java, Scala, Ruby, Elm, C++

### Data Science

analysis/ML scikit-learn, pytorch

viz D3.js, ggplot2

## Work Experience

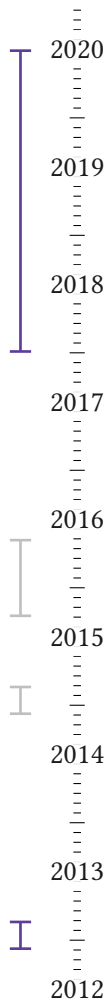
### Software Engineer, Khan Academy.

Backend coding for a educational web app on Google App Engine (Python, JS). Developed data model for a new progress mechanic that increased time spent on site by 3.5% ( $p < 0.0005$ ). Built a pipeline to compute and display practice task time estimates using BigQuery.

Frontend Developer (Freelance), Princeton University. Built a *new site* for African-American Studies Dept. with designer Remeike Forbes (PHP/WP).

Google Summer of Code Intern, Processing.org. Created *Loom*, a library/DSL for patterning audiovisual events (Java).

Google Summer of Code Intern, MetaLAB @ Harvard. Developed *Paper Machines*, Firefox extension for NLP/dataviz (Python, D3). Offered insight into users' text corpora via topic modeling, NER, geoparsing.



## Projects

*servant-state-graph*. Visualizing state transition graphs for servant RESTful APIs (Haskell).

*Transbucket*. New features, refactoring, and functional tests for 70k-user image-sharing app (Rails).

*Susurrant*. Visualization/sonification for topic models of audio (Python, Elm). Presented at Global Digital Humanities 2015.

*OHHLA\_viz*. Analysis and visualization of Original Hip-Hop Lyrics Archive (Python, R, D3, Ember). Shown at NIPS 2013 Topic Modeling Workshop.

*Paper Machines*. Continued maintenance after GSoC. Broadened compatibility by switching to Jython. Wrote a *new server* for multithreaded NLP (Scala/Play/Akka).

## Education

2015–2017 **Sc.M. in Computer Science, Brown University.**

Project: *Content-Based Genre Classification and Sample Recognition using Topic Models*

2007–2011 **A.B. cum laude in History & Literature & Music, Harvard University.**