

# Christopher Fox

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cdfox.github.io

## Experience

- May 2015 **Software Engineering Intern**, *Google*, New York, NY.
- Aug 2015
    - Natural language understanding for Google Now, Google's virtual assistant.
    - Used Python and C++ to prototype and evaluate an improvement to the system.
- Aug 2014 **Research Assistant**, *North Carolina State University*, Raleigh, NC.
- May 2015
    - Built Wizard-of-Oz data collection interface for spoken dialogue system development using the Unity platform and C#.
- May 2014 **Software Engineering Intern**, *Google*, New York, NY.
- Aug 2014
    - Prototyped an improvement to a tool for Adwords customers using a distributed computing framework in C++.
    - Built a web-based demo with Python, Javascript, HTML, CSS.
- Aug 2013 **Teaching Assistant**, *North Carolina State University*, Raleigh, NC.
- May 2014
    - Graded/wrote tests, homework, projects for two courses: Spoken Dialogue Systems and Graph Theory.
- May 2013 **Software Engineering Intern**, *Apple*, Cupertino, CA.
- Aug 2013
    - Researched, implemented, and tested a load balancing algorithm for the Game Center backend in Java.
    - Built a web-based visualization to show estimated improvement under the new system.
- Jan 2012 **Research Assistant**, *North Carolina State University*, Raleigh, NC.
- May 2013
    - Made changes to Latent Dirichlet Allocation, a probabilistic model of latent thematic structure in a text corpus, to learn topics that change with time.
    - Used Gibbs sampling to fit a model to the corpus of 32K news articles gathered using the Twitter API. Figure from my master's thesis.
- Sept 2009 **Research Assistant**, *University of Washington*, Seattle, WA.
- June 2010
    - Built an HTML Canvas-based player to display dynamically generated animations of flow cytometry data.
    - Used Python to produce a KML visualization in Google Earth from flow cytometry data.

## Education

- 2012 **MS Computer Science**, *North Carolina State University*, Raleigh, NC.
- 2009 **BS Mathematics, BS Economics**, *University of Washington*, Seattle, WA.

## Projects

- **Route Teaching Game** Web-based game where one user teaches another to draw a route on a map using textual instructions. Firebase and Google Maps API. Screenshot.
- **Walk Your City iOS App** Google App Engine backend supporting geospatial queries for an iOS app. Video (I'm the second speaker).
- **SouffleTutor.** Voice-controlled guide on iOS for making a souffle, using the Nuance speech API and a naive Bayes classifier. Video.
- **Twitter LSI** Python web app that used latent semantic indexing to project Twitter search results into 2D space and plot the result, visually clustering similar tweets. Screenshot.