Chris Fox

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Education

2016 (expected) **PhD Computer Science**, *North Carolina State University*, Raleigh, NC.
Research Focus: Modeling User Knowledge in a Tutorial Dialogue System

2012 **MS Computer Science**, *North Carolina State University*, Raleigh, NC.

2009 **BS Mathematics, BS Economics**, *University of Washington*, Seattle, WA.

Skills

Python, Java, C++, Javascript/HTML/CSS, Android, iOS, Matlab, R

Experience

May 2014 – Aug 2014 **Software Engineering Intern**, *Google*, New York, NY.
- Prototyped an improvement to a tool for Adwords customers.
- Forecasting, distributed data-processing pipelines, web-based visualization, C++

Aug 2013 – May 2014 **Teaching Assistant**, *North Carolina State University*, Raleigh, NC.
- Spoken Dialogue Systems
- Graph Theory

May 2013 – Aug 2013 **Software Engineering Intern**, *Apple*, Cupertino, CA.
- Researched, implemented, and tested a new load balancing scheme for the Game Center backend.
- Built a web-based visualization to show estimated improvement under the new system.
- Hadoop, HBase, ZooKeeper

Jan 2012 – May 2013 **Research Assistant**, *North Carolina State University*, Raleigh, NC.
- Modified Latent Dirichlet Allocation, a probabilistic model of latent thematic structure in a text corpus, to learn topics that change with time but have stable core.
- Used Gibbs sampling to fit a model to the corpus of 32K news articles gathered using the Twitter API.
- Separately, mentored an undergraduate on a project to build a speech-based physics tutor on Android.

Sept 2009 – June 2010 **Research Assistant**, *University of Washington*, Seattle, WA.
- Built an HTML Canvas-based player to display dynamically generated animations of flow cytometry data.
- Used Python to produce a KML visualization in Goolge Earth from flow cytometry data.

Selected Graduate Coursework

- Machine Learning
- Spoken Dialogue Systems
- Probabilistic Graphical Models
- Automated Learning and Data Analysis

Projects

- **Route Tracing Study.** Used cross-validated lasso regression to find dialogue features predictive of better learning in a set of route teaching dialogues.
- **SouffleTutor.** Built voice-controlled guide on iOS for making a souffle.