

# Fred Callaway

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<http://fredcallaway.github.io>

## EDUCATION

**Cornell University** (September 2012 – )  
*College of Arts & Sciences*

- ▶ Majors in Psychology and Linguistics, Minors in Computer Science and Cognitive Science
- ▶ 4.07 GPA, 4.13 Major GPA
- ▶ **Selected Coursework:** Computational Psycholinguistics, Computational Psychology, Computational Linguistics, Evolution of Language, Language Development, Intro to Syntax & Semantics, Intro to Phonetics & Phonology, Natural Language Processing, Linear Algebra, Statistics & Research Design, Discrete Structures, Functional Programming

## PROGRAMMING LANGUAGES

**Proficient:** Python (including numpy and scipy for data analysis)

**Competent:** R, JavaScript, OCaml

## RESEARCH EXPERIENCE

**Professor Shimon Edelman** (January 2015 – )  
*Cornell University*

- ▶ Created [a tool for fMRI metanalysis](#) using image processing algorithms and [Neurosynth](#).
- ▶ Honors thesis in progress: [Nümila](#), an extension of the U-MILA language acquisition model, with an online processing model and holographic representations.

**Professor Morten Christiansen** (January 2015 – )  
*Cornell University: Cognitive Neuroscience Lab*

- ▶ Created [Simple Recurrent Network models](#) of word segmentation in Danish and English.
- ▶ Helped create the [poster](#) presented at the 2015 BCBL statistical learning conference.

**Professor Noah Goodman** (June 2014 – August 2014 )  
*Stanford University: Computation and Cognition Lab*

- ▶ Designed, ran, and analyzed [on-line experiments](#) using JavaScript, Mechanical Turk, and R.
- ▶ Created [probabilistic Church models](#) of categorical explanations. ([write-up](#))

**Professor John Hale** (Sept 2013 – May 2014)  
*Cornell University: Computational Neurolinguistics Lab*

- ▶ Wrote reviews of previous neuroimaging work.
- ▶ Advertised study, scheduled participants, and conducted fMRI scans.
- ▶ Helped create the [poster](#) presented at AMLaP 2014.

## WORK EXPERIENCE

**Summer Hire** (June 2015 – August 2015)  
*Ernst & Young Fraud Investigation and Dispute Services*

- ▶ Designed architecture of a python package to sort emails by relevance to a dispute.
- ▶ Wrote module to segment emails into sections using machine learning and rule based techniques.

**Undergraduate TA** (January 2015 – May 2015)  
*CS 1110 - Intro to Python, CS 2800 - Discrete Structures*

- ▶ Held office hours and graded assignments.
- ▶ Wrote python scripts to automate grading.

## VOLUNTEER EXPERIENCE

**Compost Monitoring Coordinator** (January 2014 – May 2015)  
*Cornell University Compost Club*

- ▶ Helped students sort waste in dining halls.
- ▶ Organized and conducted training for new monitors.