

# Will Paul

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## WORK EXPERIENCE

### Software Engineer

- Currently work on a messaging based application for scheduling, customizing, and syndicating emails
- Researched, developed, and tested ways to reduce Cassandra GC pressure, without impacting email throughput
- Primary contributor the backend of a new A/B testing feature for our users from inception to launch
- Won a 'Rovie Above and Beyond' award for contributions to the A/B testing
- Instrumented and optimized the performance of Rails app, fixing memory leaks, SQL tuning, and the inlining of CSS

Constant Contact  
Waltham, MA, United States  
Jul 2016 - present

### Research Assistant

- Primary author on two papers, published and presented at INTERSPEECH 2015 & FFAVSP 2015
- Programming and linguistics lead on a multidisciplinary team of professors and graduate students on a multimodal, affective computing project
- Worked with human subjects to build and synchronize a multimodal data set for stress detection
- Created a machine learning models in Python to automatically detect stress in speech
- Designed and developed the website to promote our lab: *Computational Linguistics and Speech Processing at RIT*

RIT CLASP Research Lab  
Rochester, NY, United States  
Sep 2014 - present  
Examples:  
[rit.edu/clasp](http://rit.edu/clasp)  
[bit.ly/1MmVbtQ](https://bit.ly/1MmVbtQ)  
[bit.ly/1kxTiQd](https://bit.ly/1kxTiQd)

### Teaching Assistant

- Teaching assistant and grader for Algorithmic Problem Solving II and III
- Created and taught a class on using Git for version control

RIT  
Rochester, NY, United States  
Aug 2015 - present

### Software Engineer Intern

- Worked on the latest iteration of Constant Contact's WYSIWYG email editor
- Centralized and updated build and test tooling across 20+ repos
- Improved development/integration experience for the Templates team

Constant Contact  
Waltham, MA, United States  
Jun 2015 - Aug 2015

### Web Developer Intern

- Led development on a web project that turned a research report into an interactive data visualization
- Worked on Rails CRM apps that integrated with direct mail and email initiatives

Global Thinking  
Alexandria, VA, United States  
Jan 2014 - May 2015  
Examples:  
[demandingjustice.org/stats](http://demandingjustice.org/stats)  
[bit.ly/1kxTwqq](https://bit.ly/1kxTwqq)

## EDUCATION

Rochester Institute of Technology  
B.S. New Media Interactive Development  
Minor in Free and Open Source Software & Immersion in Language Science  
Outstanding Undergraduate Scholar Award  
Honors Program, 3.99 GPA

Rochester, NY, United States  
Sep 2012 - May 2016

## PROJECT EXPERIENCE

### Predicting Turn Types Competition

[github.com/dropofwill/nlp-predicting-turn-types](https://github.com/dropofwill/nlp-predicting-turn-types)

Led the development on a team 3 for a Natural Language Processing competition using interview transcript data to classify whether a given 'turn' in the dialogue was a question or an answer and whether the topic was of an emotional or a material nature. Achieved 89% averaged accuracy across tasks winning the competition (out of 6 teams).

### CGraph

[cgraph.herokuapp.com/](http://cgraph.herokuapp.com/)

Even though code is written linearly, it executes in a graph. Collaborated with another developer to create CGraph: a tool that parses arbitrary C code, generates a function call graph, and creates an interactive visualization of the graph side-by-side with the code. Allowing for a more natural way to explore a code base.

### Word Sense Disambiguation + Interactive Visualization

<https://github.com/dropofwill/wsd-sankey-visualization>

Implemented the Yarowsky supervised decision list algorithm for the word sense disambiguation task in Python. Created an interactive Sankey diagram to help interpret the results of the algorithm on an arbitrary data set.

## CORE SKILLS

Programming languages	Comfortable with
Java	PostgreSQL
Scala	MySQL

Ruby

JavaScript

Python

Cassandra

Redis

RabbitMQ