Justin Richards
Data Scientist, Full-stack Web Developer, and Educator

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EDUCATION

May 2014   **The Graduate Center at the City University of New York**
Master of Arts in Computational Linguistics (GPA 4.0)
- **Areas of Focus:** speech, semantic role labeling, and machine learning
- **Natural language Processing Seminar:** student chair

Publications (co-author)
- *Using Word-Burst Analysis to Rescore Keyword Search in Low Resource Languages*. (2 Proceedings of ICASSP.
- *Strategies for Rescoring Keyword Search Results Using Word-Burst and Acoustic Fea* (2014) Proceedings of Interspeech.
- *Let Me Finish: Automatic Conflict Detection Using Speaker Overlap* (2013). Proceedings Interspeech.

May 2007   **University of Florida**: Bachelors of Science
- **B.S. in Journalism, minor in English** (GPA 3.5)

EXPERIENCE

June 2015-
June 2017   **THE IRON YARD – Houston, TX**
Designed and implemented a curriculum for web development with JavaScript.

Software Engineering Instructor
- Taught a 12-week, full-time immersive course in client- and server-side web application development for enrollees with no prior experience.
- Designed long-term pedagogical strategies as well as daily activities and assignments; improve and expanded the course material with every cohort.
- Project-managed teams of up to 19 new developers on hackathons and full-stack application development.
- Built a full-stack web development framework for students.
- Placed ~80% of graduating students in high-paying software development jobs.

Feb. 2013-
Aug. 2014   **IARPA BABEL OPEN KWS PROJECT– New York, NY**
U.S. Department of Defense project to generate high-performing keyword search (KWS) system for speech data in low-resource languages

Researcher/Programmer
- Wrote software that interacted with every level of a multi-stage KWS system produced by a global team spanning several universities and corporate labs.
- Improved on team's best KWS result by designing a feature set, ML classification scheme, and parameter-optimization routine for search-result rescoring.

April 2013-
June 2014

FREELANCE DATA SCIENTIST– New York, NY
Clients included an academic department, a startup, and a financial firm.

- Created programs to achieve abstract goals presented by non-technical clients, determining high-level strategies, applicable tools, and most effective code logic.
- Developed an effective model (~55% accuracy) for predicting stock returns by performing NLP analysis on the language of CEOs for a risk management firm.
- Delivered a user-friendly and stable tool for a non-technical end user that automates the harvesting of data stores on over 75 websites.

Nov. 2012-
Oct. 2014

SPEECH LAB AT QUEENS COLLEGE – New York, NY
Research group focused on computational approaches to decoding speech

Research Assistant
- Collaborated with other researchers on large-scale projects relating to speech and natural language processing
- Published work in response to the Interspeech ComParE conflict recognition challenge with a feature reduction method that improved on baseline results.

Aug. 2009 -
May 2012

LEGAL OUTREACH – New York, NY
College pipeline program for students from underserved communities.

Writing Program Instructor, Afterschool Program Director
- Developed a year's worth of curricular materials in grammar and essay writing
- Fully restructured the afterschool program, effecting the first measurable improvement in grade average in the organization's history.
- Presented statistical reports on attendance and grades to Legal Outreach's funders.
- Managed a team of five instructors, each responsible for a class of 12 - 15 students.

SKILLS & LANGUAGES

Tech: JavaScript (React, Node); SCSS; OAuth; Stripe; Cordova/PhoneGap; Python; git; UNIX environments

Languages: Proficient: Spanish, German; Competent: French, Chinese