Sean C. Martin

Contact Information:

LOCATION: Oakland, California

EMAIL: sean.martin@nyu.edu

WEBSITE: phasedchirp.github.io

PHONE: 510-301-2920

Education:

PhD, Linguistics New York University (September 2015): Research focused on speech perception and quantitative methods in behavioral research, in addition to integrating tools from machine learning to build computational models of cognitive processes.

BA, Linguistics University of California, Los Angeles (May, 2008)

Programming Languages:

R, Python, SQL, Stan, Julia, Octave/Matlab.

Experience:

Business Analyst Kaiser Permanente (5/2017-present) Data analysis and predictive analytics for large-scale healthcare data. Integrating predictive modeling tools into ETL processes handling data for millions of Kaiser members. Developing automated and interactive anomaly detection tools to monitor data source quality.

Consultant (9/2015-5/2017)
Built to provide automated, reproduceable, and interpretable data analysis pipelines for academic researchers and businesses. Worked closely with clients to develop quantitative models that addressed their business or research questions and constructed data pipelines that processed their raw data into interpretable summaries and visualizations. Projects included:

- Bayesian modeling of individual behavior and contextual variability to examine how speakers use socio-linguistic features to construct and present ethnic identity.
- Designed and built a webservice for reproduceable analysis of SEO data for RankScience. Developed initial design documents, then built and deployed this tool as a webservice using Amazon's Elastic Beanstalk platform for production use.

Lab Manager NYU Phonetics and Experimental Phonology Lab (5/2011-9/2015)
Developed data collection and analysis pipelines, provided computational support for students and faculty.

- Re-built NYU PEP Lab's pipeline for processing and analyzing tongue-shape data, streamlining procedures and reducing space for analysis errors.
- Replaced complex scripts with higher-level user-friendly interface covering standard use cases and where possible migrated to open-source tools freely available to students. (see github.com/NYU-PEP)

Research Assistant NYU Department of Linguistics (5/2011-8/2014)
(PIs Lisa Davidson and Colin Wilson, NSF Grant 1052784) Project investigated phonetic and phonological factors in non-native speech perception.

Publications:

Holiday, Nicole and Sean Martin (2017) *Vowel categories and allophonic lowering among Bolivian Quechua–Spanish bilinguals* Journal of the International Phonetic Association, 1-24.

Davidson, Lisa, Sean Martin, and Colin Wilson (2015) *Stabilizing the production of nonnative consonant clusters with acoustic variability.* Journal of the Acoustical Society of America, vol. 137 pp. 856-872

Wilson, Colin, Lisa Davidson, and Sean Martin (2014) *Effects of acoustic-phonetic detail on cross-language speech production.* Journal of Memory and Language, vol. 77, pp. 1-24