# **NATHAN CAHN**

# **SKILLS**

Python, SQL (MySQL), Advanced Microsoft Excel, Natural Language Processing, Data Cleaning, Data Modeling, Data Mining, Google Suite, Microsoft Suite, Salesforce, Git, Linux, Familiar with MATLAB, French (professional working proficiency -- ILR level 3+), HTML/CSS

# **EXPERIENCE**

UC San Francisco · July 2018 - December 2019

Linguistic Specialist in Chang Lab, Department of Neurological Surgery

- Applied Pandas, SQL, NumPy, voxel-based lesion–symptom mapping, and other data manipulation/analysis tools to high dimensional patient information datasets and gained statistical insights into the neurological correlates of speech and language found in neurosurgical patients
- · Advanced knowledge and approaches of a team of neurosurgeons by contributing to the literature in areas of the brain/language relationship
- Designed and administered language tests to patients undergoing neurosurgery in a fast-paced and high pressure environment in order to extract language patterns and neurological data
- Built tools to assist in signal-to-noise ratio detection in speech and neural data that have been implemented in a language prosthesis brain-computer interface that is now helping patients with chronic language disorders

#### PerimeterX, Inc. · April 2018 - July 2018

Salesforce Administrator Intern

- Built and implemented Salesforce dashboard/visualization toolsets to be used across multiple teams with the goal of translating complex data into digestible information
- · Used data management tools to support the sales operations team in system updates and data integrity efforts
- Collaborated with cross functional teams to document and improve existing sales processes

# **AWARDS**

# UCSF $\cdot$ 1st place team in Summer of Natural Language Processing contest August 2019

Using word vectorizing and topic modeling tools our team explored linguistic patterns over time. In particular we focused on imbalances around social/gender concepts as well as sociolinguistic features such as general perception of disease.

# **RESEARCH/PROJECTS**

#### Research Paper on Neurological Language Deficit · Current

John P. Andrews; Nathan Cahn; Edward F. Chang. "The Necessary and Sufficient Conditions of Broca's Aphasia." pending submission. University of California San Francisco. 2020

# Poster Presentation on Neurological Language Deficit $\cdot$ April 2020

John P. Andrews; Nathan Cahn; Benjamin Speidel; Edward F. Chang. "Apraxia of speech in neurosurgical resection, a moving target." American Association of Neurological Surgeons (AANS). Boston, MA, 2020

### Poster Presentation on Neurological Language Deficit $\,\cdot\,$ October 2019

John P. Andrews; Nathan Cahn; Benjamin Speidel; Edward F. Chang. "Apraxia of speech in neurosurgical resection, a moving target." Congress of Neurological Surgeons Annual Meeting. San Francisco. CA. 2019

#### Talk on Word Evolution in the AIDS Crisis · December 2019

Nathan Cahn; Oksana Gologorskaya; Hunter Mills; Lauren Kaplan. "No More Silence: Monitoring Bias with Word2Vec". TextXD Annual NLP conference. Berkeley, CA, 2019

#### $Undergraduate\ Research\ Apprenticeship\ Program\cdot August\ 2015\ -\ December\ 2016$

Performed cross-linguistic comparisons of conditional and causal phrases in French and English gestures in order to explore the connection between metaphor, grammar and multimodal language. Research Assistant role.

## Linguistic Research Apprenticeship Program: SociolinguisticsAugust 2015 - May 2016

Applied regression models and data visualization tools in order to investigate the role of socioeconomic factors in ongoing changes of Southeastern Asian languages' phonological and syntactic structures. Research Assistant Role.

# **EDUCATION**

University of California, Berkeley  $\cdot$  August 2014 - December 2016 Bachelor of Arts Linguistics

Shasta College · August 2012 - May 2014

Associate of Arts Language Arts