

Motivated individual with experience in industry, research, and data analytics. Expert in holistic analyses that unite technical and behavioral components to understand product usability, and user behavior. Research interests in UX and product development.

## Education

**UNIVERSITY OF CALIFORNIA, SAN DIEGO**

SAN DIEGO, CA

**B.S. Cognitive and Behavioral Neuroscience**

DEC 2020

*Awards:* Provost Honors (SP19, FA19)

*Relevant Coursework:*

- |   |                                     |  |
|---|-------------------------------------|--|
| • <i>Calculus I - III</i>                             | • <i>Introduction to Python</i>     | • <i>AI Algorithms</i>                           |
| • <i>Advanced Quantitative Research (Grad. Level)</i> | • <i>Data Science in Practice</i>   | • <i>Research Methods</i>                        |
| • <i>Linear Algebra</i>                               | • <i>Modeling and Data Analysis</i> | • <i>Independent Research (Special Projects)</i> |

**OHLONE COLLEGE**

FREMONT, CA

**A.A. Human Development | A.A. Social Sciences**

JUN 2018

## Professional Experience

**UC San Diego (Brain and Cognition Lab)**

SAN DIEGO, CA

**LEAD RESEARCH ANALYST**

DEC 2019 – PRESENT

- Led team of three in coordinating data collection, data exploration, and subject processing.
- Implemented automated pipelines in **Python**, alleviating 20+ hours of weekly duties for lab assistants.
- Performed statistical tests, examining significance and effect size of differences among treatment conditions.
- Leveraged quantitative and qualitative data to enrich subject data profiles using NLP and regression analysis.
- Utilized topic-modeling NLP to identify language-learning strategies among subjects and treatments.

**Facebook**

REMOTE

**DATA CHALLENGE FINALIST**

APR 2020 – AUG 2020

- Met with mentors to understand Facebook's approach towards data analytics and product development.
- Participated in workshops and challenges aimed at improving our skills in **SQL** and product-sense.
- Placed 1st in the final challenge.

**Whova, Inc.**

SAN DIEGO, CA

**DATA SCIENCE INTERN**

OCT 2019 – APR 2020

- Contributed to productionized models to power a targeted, event-to-event, advertising feature.
- Engineered features and refined data classifications for model training data set.
- Analyzed churn account data holistically to identify pain points and solutions using **Python**.
- Interviewed former clients to identify areas for product growth, and their experience with the Whova app.
- Mobilized development of new app features and post-event reporting for client sponsors.
- Resulted in an increase in reactivated accounts and client satisfaction.

**UC San Diego Health (Neural Engineering and Translation Lab)**

SAN DIEGO, CA

**ASSISTANT RESEARCH ANALYST**

JAN 2019 – OCT 2019

- Surveyed subjects using REDcap, and prepared subjects for EEG recordings and TMS administration.
- Assisted with coordinating diary study, and concept testing a cognitive test to be completed by subjects.
- Decomposed neural oscillatory rhythms using Fourier transforms in **Python** to examine and establish baseline brain activity in subjects pre- and post-stimulation.
- Findings aided in the development of new personalized therapies to treat ADHD and depression.

**Ohlone College**

FREMONT, CA

**ASSOCIATE RESEARCHER**

JAN 2018 – JUN 2018

- Team sought to understand how to improve student life at the community college.
- Contributed to methodology and administered surveys, held interviews, and led focus groups.
- Uncovered and communicated campus pain points, student profiles, and solutions using **Tableau** and **SPSS**.
- Resulted in the organization of TEDx conferences and increased professional development events.

## Publications

(In Progress) Lopez, D.E., *Word Vectors and Distributional Semantics - From Word2Vec, to GloVe*

(In Progress) Trott, S., Semenuks, A., Bergen, B., Lopez, D.E., *Sub-morphic form-meaning systematicity: the impact of onset phones*

## Select Projects

### Email Newsletter Summarizer / [GitHub](#)

Developed a script that summarizes lengthy newsletter articles into seven sentences each, and presents them as a “Daily Digest” within the user’s browser, along with links to LinkedIn, Gmail, and other popular websites. Accesses emails from Medium.com containing the users daily recommended articles (~20 articles). Created to avoid having to sift through click-bait and rambling articles in order to digest more, and higher quality, articles at the start of each day.

### Brand Perception - Using Spotify and Natural Language Processing / [GitHub](#)

Developed a methodology to be used in an upcoming web app aimed at allowing users to identify their “coolness” based on the quantitative and qualitative components of their favorite music. Collected data from the Spotify API, bridged a connection to the Genius API for lyrical data, and engineered features in order to evaluate “coolness” against seven metrics. This notebook contains an analysis of my own listening habits.

### Content-Based Recommender / [GitHub](#)

Utilized data from MyAnimeList.com to design a content-based recommender. The recommender returns 10 shows that are most likely to be enjoyed by the user, given the user’s inputted show. Takes into account, popularity, episode count of the series, genre, and member ratings. Though it does not utilize collaborative-filtering, the model is able to match many of the recommendations that MyAnimeList.com itself provides on their website.

### The New Alternative (2016 - 2018)

Began a music journalism website aimed at documenting the thriving music scene in the SF Bay Area. Conducted interviews and wrote articles, on top of managing logistics from scheduling to analytics. Experimented with A/B testing to develop layouts and content aimed at improving stickiness, resulting in a 10% increase of weekly active readers. Ended project to focus on my studies at UC San Diego.

## Certifications

### CITI PROGRAM

*Social and Behavioral Research*

*Biomedical Research*

*Clinical Practice*

SAN DIEGO, CA

DEC 2019

JAN 2019

JAN 2019

### AT&T

*Summer Learning Externship - Data Analytics (Cert. of Completion)*

REMOTE

JUL 2020

## Skills

### TECHNICAL:

- Python (Pandas, Numpy, Statsmodels, SKLearn, matplotlib, etc.)
- PostgreSQL | MySQL
- R (tidyverse, ggplot2)
- Excel
- MATLAB
- SPSS

### MACHINE LEARNING:

- Regression Modeling
- Clustering
- Natural Language Processing
- Classification
- Neural Networks

### EXPERIMENTAL:

- A/B Testing
- Experiment Design
- Quantitative Analysis
- Qualitative Analysis
- Statistical Inference
- Hypothesis Testing
- Survey Design
- User Interviews
- Benchmarking
- Diary Studies
- Concept Tests
- Usability Studies