James Wenzel

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EDUCATION

UC Berkeley, B.A. in Cognitive Science (concentration in Computer Science) ***Expected May 2017***
Foothill College, Certificate of Proficiency in Music Business ***2014***

Coursework:
Interpreted Programming Languages (Python, Scheme, SQL), Algorithms and Data Structures (Java), Intro to Data Science (matplotlib, NumPy), Data Science in Cognitive Science, Databases (SQL) (pending), Artificial Intelligence (Python) (pending), Music Cognition and Perception

Programming Languages:
I'm proficient in Python and comfortable with Javascript, SQL, and Java. I use d3.js for data visualization.

WORK EXPERIENCE

Data Engineering & Visualization Intern – Polygraph ***June 2016 – August 2016***
I mined and cleaned data for projects and visualized them with d3.js, including:

- A series of animated visualizations for the @polygraphing Twitter using Billboard chart and WhoSampled music data
- An interactive force-bubble diagram with informational tooltips, category selection, and search for *The Influence of Quincy Jones*
- Dynamic geolocation, interactive bar graphs, category-sorted force-bubble diagrams, and exploratory tables, chloropleths, and maps based on t-test statistics for an upcoming project
- Audio features extracted from individual parts of a song for an upcoming project

(Python – BeautifulSoup, numpy, scipy.stats, Javascript – d3.js, SQL, RDF, HTML, CSS)

Artist Relations Intern – MAGNIFI ***May 2015 – August 2015***
I automated artist management metadata lookup using Twitter and Facebook APIs and web scraping.
(Python - BeautifulSoup, Selenium, regex)

RECENT PROJECTS

InstaCaption (Python – Beautiful Soup, NLTK, Semantic Spaces, Word Vectors)
Retrieves song lyrics from an artist based on a supplied topic. Suggests similar topics and lyrics using a semantic space. Built at the Science of Music Hack Day, hosted by ISMIR and Spotify in NYC.

Drake Hate Twitter Bot (Heroku, Python – NLTK)
Heroku app that uses the Twitter API to retweet mean tweets about the recording artist Drake using a naïve-Bayes classifier trained on a custom dataset using NLTK in Python

Color Synth Filter (HTML, CSS, Javascript – tone.js)
Maps a user-picked color to the frequency and intensity of a subtractive audio filter to an in-browser synthesizer. Built as part of the Multisensory Music Hack Day at Spotify in NYC.

Color-mapped Audio-Reactive LED Screen (Processing/Java – FFT, Arduino)
Hand-built 16x32 LED screen, driven by a microcontroller, linked to Processing via serial bus. Reacts to audio analyzed via Fast Fourier Transform and maps color to pitch based on peak perceptual sensitivity.

EXTRA CURRICULARS & LEADERSHIP

I fundraise and volunteer as a summer camp counselor for Camp Kesem Berkeley, which puts on a free week of camp for kids affected by a parent's cancer. I was also Director of Music and VP of Finance for the UC Berkeley chapter of the Business Careers in Entertainment Club.