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# **JULIA WILKINS**

### **Publications**

**Wilkins, J.**, Seetharaman P., Wahl, A., Pardo, B. *VocalSet: A Singing Voice Dataset.* In Proceedings of ISMIR 2018.

Bittner, R., **Wilkins, J.**, Yip, H., Bello, J. *MedleyDB 2.0: New Data and a System for Sustainable Data Collection.* Late Breaking Demo of ISMIR 2016.

## Technical Skills

**Programming Languages:** Python (NumPy, Pandas, PyTest, Tensorflow), SQL, Java, HTML

**Technologies:** Git, Bash, Snowflake Cloud Database, Tableau, AWS (Athena, S3, Lambda, SNS)

*Music Technologies:* Max/MSP, Supercollider, Ableton, openFrameworks

## Project Highlights\_\_\_\_

### **VocalSet**

#### March 2017-June 2018

Curated and collected a large dataset of professional vocal samples to create a singing voice technique classifier using Python and neural networks. (ISMIR 2018)

#### HarmonizeMe

#### December 2016-March 2017

Created a Python application that harmonizes a user's melodic vocal input based on chord selection. Prototyped an educational iOS version of the automatic harmonization.

## Extracurriculars

#### Microsoft TEALS Teacher

#### June 2019-present

Second-year volunteer teacher leading a yearlong remote high school course introducing computer science in Snap and Python.

## **Ada's Developer Academy Tutor**

#### September 2018-June 2019

Volunteer programming tutor (Python) for a free, non-profit coding bootcamp for women and underrepresented adults who are changing career paths.

## Summary\_\_\_\_

Motivated and passionate engineer and researcher seeking graduate studies in music information retrieval and data science/engineering.

### Education

## Northwestern University | Evanston, IL | 2014-2018 Dual Major: B.S. in Computer Science and Music Technology.

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## Goldsmiths, University of London | London, UK | 2016

Study abroad experience focused on the opportunity to take unique courses including Audio-Visual Processing and Music Computing.

## Work Experience\_\_\_\_\_

## Sonos, Inc.

**Data Scientist/Engineer I Seattle, WA I** *Aug. 2018-present* Orchestrating, retrieving, and analyzing product and user data from 7.5 million daily active users.

**Data Science:** Leading efforts in text analytics at Sonos, working to productionize Sonos' first full-stack NLP model to classify customer survey data by content and sentiment and expand these results to text analytics workstreams around the organization. Developed a web-app to internally crowdsource labelled data and an automated AWS pipeline to serve new predictions to live dashboards.

**Data Engineering:** Core developer of today's end-to-end product data pipeline, designing a pipeline to handle multiple terabytes of heterogenous product data daily and surface performant reporting data to consumers. Productionizing machine learning models and data products used to predict customer language and behavior.

#### Sunhouse, Inc.

Software & Research Intern | New York, NY | June-Aug. 2017

Developed the research foundation of new software features for Sensory Percussion software using machine learning and audio feature extraction.

## Interactive Audio Lab, Northwestern University Undergraduate Research | Evanston, IL | Jan. 2017-June 2018

Working under the supervision of Bryan Pardo on a variety of music-information retrieval and audio-based machine/deep learning projects.

## Music and Audio Research Lab, New York University Research Assistant | New York, NY | June-Aug. 2016

Developed a Python application to error-proof audio files collected for MedleyDB, a large annotated dataset of multitrack audio files used for music information retrieval research.

#### Listen

### Intern | New York, NY | June-August 2016

Shadowed internal projects and worked through an independent audio branding R&D project under the supervision of the founding partners.