p. 908-399-3538

# Thomas Lisankie

github.com/TomLisankie

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## OBJECTIVE

I am a recent graduate of the Udacity Machine Learning Engineer Nanodegree seeking to leverage my technical skills and knowledge to build interesting NLP products.

## EDUCATION

**Udacity**
*Machine Learning Engineer Nanodegree*                                    *December 2017 - April 2018*

**Rutgers University, New Brunswick**                                      New Brunswick, NJ
*56 Credits towards BA in Cognitive Science, Astronomy*    *Attended September 2015 - December 2017*

## SKILLS

- **Languages:** Python, Java, Objective-C, Swift, JavaScript
- **Machine Learning and Data Science Tools:** TensorFlow, Keras, scikit-learn, pandas

## WORK, LEADERSHIP EXPERIENCE, AND RECOGNITION

**Data Science Teaching Assistant**                                       -
*Rutgers University Continuing Education*                                  *July 2018 - Present*
- Assisting in teaching a course that covers basic programming concepts, Python, JavaScript, data visualization, data analysis, SQL, MongoDB, R, Hadoop, Tableau, and machine learning concepts and tools.
- Strengthening knowledge even further through explanation of the subjects.

**Software Development Intern**                                           -
*Sharkk, LLC*                                                             *May 2017 - September 2017*
- Assisted in developing an app to communicate with a Bluetooth low energy beacon in the Angel Safety device. Written using Cordova and AngularJS.
- Wrote frontend code for http://sharkklabs.com/ and https://angelsafety.org/blog.php.

## PRIMARY PROJECTS

**Sound Similarity with a Deep Learning Model** - https://goo.gl/EhSR18          *March 2018 - Present*
- Developed a machine learning model using a Siamese neural network architecture which categorizes word pairs based on how similar they sound. Developed using Keras with a TensorFlow backend.
- Made use of embedding layers, convolutional layers, and other NLP techniques in order to find a "pronunciation space" where similar sounding words exist closer to each other.
- Achieved 30% test accuracy on millions of samples. Under continuous development to improve the accuracy.

**Prhymer** - http://tomlisankie.com/projects/prhymer/                    *May 2015 - Present*
- Created an algorithm and the necessary infrastructure for comparing any two words based on their phonemic makeup to see how similar they are in pronunciation.
- Generalized to work as a novel global sequence alignment algorithm. Versions available in both Java and Python.
- Resulted in an algorithm that can reasonably tell how well two words rhyme and how similar they sound based on transcriptions of their pronunciations.