

WILL STITH

✉ wstith@alumni.nd.edu
☎ 630-639-7209
📍 Chicago, IL 60611
in willstith
🌐 willstith

Skills

LANGUAGES

Python
SQL

LIBRARIES

Keras
BeautifulSoup
sklearn
matplotlib
Seaborn
Selenium
NLTK
numpy
PIL

DATA VISUALIZATION

Tableau
Bokeh
Plotly

CLOUD/DATA STORAGE

AWS
PostgreSQL
DBever

MACHINE LEARNING TECHNIQUES

Regression
Classification
Clustering
Neural Nets
CNNs
Transfer Learning
NLP

Experience

Metis

Data Scientist

Chicago, IL
June 2020 to Sept. 2020

- Immersive 12-week data science bootcamp
- Learned wide variety of data science skills and techniques
- Completed four independent data science projects

Rush University

Graduate Researcher

Chicago, IL
Jan. 2017 to Apr. 2019

- Completed master's thesis on mood disorders in epilepsy patients
- Recruited subjects and conducted psychiatric assessments
- Processed and analyzed MRI for volumetric and diffusion data

University of Notre Dame

Undergraduate Researcher

South Bend, IN
Jan. 2013 to May 2015

- Conducted mortality studies on *Drosophila*
- Investigated methuselah-like GPCRs as insecticide targets
- Trained students in molecular biology techniques

Projects

NLP - Jeopardy! Clue Categories

Aug. 2020 to Aug. 2020

Fourth project for Metis. Applied NLP techniques to categorize Jeopardy! clues. Using topic modeling with NLTK, clues were grouped into 20 categories corresponding to actual common trivia categories. Also includes a basic training application which helps players focus on questions similar to those previously answered incorrectly.

Classification - Wine Quality

July 2020 to Aug. 2020

Third project for Metis. This was a classification project using a popular dataset on the quality of Portuguese Vinho Verde wines. The features were the wines' physicochemical traits, and wines were classified as "fine" or not. A variety of classification algorithms were tested, with random forest proving the best with an F1 score of 0.56. Also includes an app on Streamlit for users to test the quality of their own wines.

CNNs/Transfer Learning - Bird Image Classification

Aug. 2020 to Sept. 2020

Final project for Metis. A bird image classifier using convolutional neural networks and transfer learning. The final model is built upon a pre-trained model with the MobileNetV2 architecture and achieved a 62% accuracy score across 36 different bird species. In addition, there's a program which sorts newly uploaded bird photos into different folders depending on the species predicted by the model. The CUB 200-2011 birds dataset was supplemented with photos taken by myself for the training data.

Linear Regression/Web scraping - Board Game Complexity

July 2020 to July 2020

Second project for Metis. This project involved web scraping a random sample of board games from boardgamegeek.com and using features of those board games to build a regression model predicting a game's complexity rating. Features included playing time, number of players, player rating, and game mechanics.

Education

University of Notre Dame

B.S. Biological Sciences 2015

Aug. 2011 to May 2015

Rush University

M.S. Integrated Biomedical Sciences - Neuroscience 2018

Aug. 2016 to May 2018