# Phillip Lagoc

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## **Education**

## University of California, San Diego

B.S. Cognitive Science, w/ Specialization in Machine Learning and Neural Computation *Relevant Coursework*: Data Science, Modeling and Data Analysis, Machine Learning

La Jolla, CA Sept. 2016 - Jun. 2020

## **Skills**

Languages: Python, PostGreSQL, C/C++, Java, R, HTML/CSS/JavaScript

Frameworks and Libraries: JUnit, GoogleTest, pandas, scikit-learn, matplotlib, JsPsych, PyTorch

**Software:** Tableau, Jupyter Notebook, Git, Visual Studio, Eclipse

Cloud: AWS (EC2, S3)

# **Work Experience**

#### **Machine Learning Research Assistant**

La Jolla, CA

Machine Learning for Social Science Lab (MSSL)

Jan. 2019 - Present

- Evaluated the performance of MSSL's temporal tagger against other leading taggers to determine how to improve temporal annotation performance of online documents.
- Visualized the operational costs of different AWS EC2 instance types using matplotlib to optimize model training time and data gathering, which resulted in cutting operational costs by 50%.
- Increased workflow efficiency over four months by leading bi-weekly meetings and documenting weekly tasks into an easily accessible slide deck.

#### **Data Science Instructional Assistant**

La Jolla, CA

UC San Diego Cognitive Science Department

Mar. 2019 - Dec. 2019

- Led weekly discussion sections for 20+ students and received 16 positive evaluations regarding my performance, including the highest rating for overall performance from the professors.
- Enhanced student understanding of machine learning models and data science techniques and concepts including data gathering and preprocessing, graph visualization, and data analysis.

# **Data Science Projects**

#### **Airbnb Price Predictor**

Apr. 2020 - May 2020

- Analyzed public Airbnb data to build a model that could predict the price of a listing given features such as the location and listing size.
- Evaluated various regression models, including boosting and bagging algorithms, using cross-validation, and employed dimensionality reduction techniques to optimize model performance.
- Reconfigured the best model to use features known to the host prior to listing the property in order to assist them in determining the best price for their listing, achieving a MAE of 0.25.

#### **LeNet Digit Recognizer**

Jan. 2020

- Researched CNNs and implemented the LeNet architecture in PyTorch for Kaggle's Digit Recognizer Competition, ranking in the top 10% for model accuracy.
- Developed the network architecture from scratch and implemented a pooling and dropout layer to prevent overfitting.

# **Leadership Experience**

## **Cognitive Science Student Association**

Sept. 2017 - Jun. 2020

- Coordinated networking events with alumni from notable companies like Google and ServiceNow and well-known Cognitive Science faculty.
- Spearheaded the communication with successful individuals including the IBM AI Practice Lead and the Apple AI Research Director for our 14th annual national conference.