# Andrew B. Cukierwar

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#### **EDUCATION**

## **Washington University in St. Louis**

St. Louis, MO

M.S. in Computer Science, Graduate Certificate in Data Mining & Machine Learning

December 2018

B.S. in Computer Science, Second Major in Mathematics

December 2018

- Cumulative GPA: 3.5/4.0; Major GPA: 3.6/4.0
- Awards & Honors: Dean's List, Thomas H. Eliot Scholar
- Relevant Coursework: Linear Algebra, Probability, Statistics, Stochastic Processes, Advanced Algorithms, Multi-Agent Systems, Artificial Intelligence, Machine Learning, Bayesian Machine Learning

## **WORK EXPERIENCE**

Boeing St. Louis, MO

Data Science Intern

June 2018 - Aug 2018

- Rewrote an internal application's ML infrastructure in Python to allow for external product distribution.
- Trained a random forest classifier on Boeing 787 data to predict wire damage, reaching 90% accuracy.
- Redesigned an in-house Microsoft Access legacy application as a web app using an Oracle database.

## Washington University in St. Louis

St. Louis, MO

Teaching Assistant | CSE 557: Information Visualization

Jan 2018 – May 2018

- Helped students understand design theory and how to develop visualizations using D3 and Processing.
- Conducted weekly office hours and graded assignments for a graduate level course of 40+ students.

U.S. Census Bureau Washington, DC

Data Science Fellow

June 2017 – Aug 2017

- Developed a logistic regression classifier in Python to optimize the Commodity Flow Survey.
- Classified shipments into 1 of 500+ product codes based on text descriptions and numerical features.
- Applied bag-of-words model after cleaning malformed text descriptions from 3 million rows of data.

Ogilvy & Mather

New York, NY

Media Analytics Intern

June 2016 – Aug 2016

- Designed charts and drew strategic insights to build slides for monthly and competitive reports.
- Created dashboard of monthly data to be delivered to the client, Showtime, on a weekly basis.
- Maintained database by adding and cleaning data from various data streams.

## RELEVANT PROJECTS

## **Congressional Phrase Evolution in the Media (Master's Project)**

**Sep 2018 – Dec 2018** 

- Researched how new partisan Congressional phrases are introduced and continue to evolve in the media.
- Applied NLP techniques to Congressional speech text to produce millions of preprocessed n-gram phrases.
- Computed partisanship scores for each n-gram phrase using Pearson's chi-squared statistic.
- Scraped and processed text of 300,000+ articles from 6 liberal and conservative online news sources.

## **Bayesian NBA Game Prediction Model**

Mar 2018 – May 2018

- Predicted outcomes from 2017-18 games with an accuracy of ~70% solely using prior season data.
- Trained a gaussian process regression model with an RBF kernel using pyGPs.

## **EchoChamber (Google Chrome Extension)**

Jan 2017 - May 2017

- Created a Chrome extension to monitor the overall partisan bias of the news articles a user reads.
- Trained a logistic regression classifier in Python to score and classify news articles, achieving 92% accuracy.
- Scraped and processed 14,000 articles from 13 sources across political spectrum for training and testing data.

## **NBA Lineup Cluster Analysis**

Feb 2017 - Mar 2017

- Performed a k-means cluster analysis using 2016-17 season data to identify different player archetypes.
- Applied clustering results to lineup data to determine the most effective combinations of player types.

#### SKILLS

**Technical Skills:** (Proficient): Python, Java, D3.js; (Intermediate): R, SQL, MATLAB, C++.