# Nathan Drezner

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## **EXPERIENCE**

## **Dash Solutions Architect**

Plotly - provides online graphing, analytics, and statistics tools and web frameworks for individuals and collaboration

February 2019 - Present

Montreal, Canada

- Develop Dash applications using the full-stack Dash Enterprise framework for internal use and external customers for industries including finance, government, and supply chain
- Work with tools including Plotly Dash, Apache Spark, Redis/Postgres
- Public facing apps include a nursing home COVID monitor.

#### Research Assistant

.txtLab - a laboratory for cultural analytics at McGill University

May 2020

- ♥ Montreal, Canada
- Designed and oversaw a .txtLab project to study the salient language of disagreement and consensus building on Wikipedia
- Conducted data mining of Wikipedia using its API and Beautiful-Soup and web scraping of Amazon using Beautiful Soup
- Used scikit-learn, pandas, and igraph in Python and R to conduct network analysis and use NLP to study semantic patterns
- Project overseen by Profs. Andrew Piper and Richard Jean So

## Research Assistant

The Riddle Project - a ROAAr project dedicated to transcribing, solving, and researching riddles found in early manuscripts

April 2019 - April 2020

- Montreal, Canada
- Built a website and several geospatial web apps at riddleproject.github.io to illustrate riddle movement over time using MapBox and JavaScript
- Oversaw digital humanities analysis of riddles using in **Python** by classifying riddles, using network analysis, and visualizing semantic change based on riddle periods, publishers, and locations
- Project overseen by Prof. Nathalie Cooke

## Research Assistant

Montreal Computational & Quantitative Linguistics Lab - a labratory to study fundamental questions about language acquisition, processing, use in society, and change over time

- Contributor for a project studying patterns of productivity and reuse in language including designing an algorithmic implementation of a qualitative model for productivity
- Project overseen by Prof. Timothy O'Donnell

#### **AWARDS**

#### Arts Undergraduate Research Award

Given to support undergraduate students who undertake research during the summer under the direct supervision of a faculty member \$4,000 grant for work with .txtLab, 2019

## **SKILLS**

- Language: Python, Clojure, JavaScript, Bash, R, HTML, CSS, French (some working proficiency)
- Technologies: Dash, Plotly, Spark, Databricks, MapBox, pandas, scikit-learn

## **EDUCATION**

# McGill University

Bachelor of Arts

September 2016-April 2020

• Double major in Computer Science and English, cultural studies

## **LEADERSHIP**

# **President & Team Development**

Canadian Intercollegiate Sailing - governing body for Canadian collegiate-level sailing

- Elected by a coalition of 18 teams across Canada to two terms as president of CICSA and one term as team development officer
- Oversaw development of an online scoring system built entirely from scratch and implemented a program to provide bursaries for underfunded teams in the league

#### PERSONAL PROJECTS

## Network Analysis of Horror Films 🕠



- Studied themematic patterns, tropes, and the structure of the horror genre using social networks
- Project overseen by Prof. Ned Schantz

## Wikipedia Picture of the Day

• Daily automated posting of Wikipedia's picture of the day on Instagram using both the Wikipedia API and Instagram API on @wikipictureoftheday

# **PUBLICATIONS**

#### Reconciliation in Chaos

• Published in The Channel, McGill Department of English Undergraduate Review "Reconciliation in Chaos: Tracing word distributions and sentiment in the monologues of Palace of the End", The Channel, March 26 2019 www.mcgillchannelundergraduatereview.com