

# ALEXANDER SIGRIST

## DATA SCIENTIST

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## Skills

### PROGRAMMING

Python  
SQL  
JavaScript

### MACHINE LEARNING

Regression  
Classification  
Natural Language Processing  
Neural Networks

### LIBRARIES AND FRAMEWORKS

Pandas  
NumPy  
NLTK  
Scikit-learn  
BeautifulSoup

### VISUALIZATION

Matplotlib  
Seaborn  
HTML/CSS  
Tableau  
ArcGIS/QGIS  
InDesign/Illustrator

### DATA MANAGEMENT

Git  
PostgreSQL

## Education

New York University  
Robert F. Wagner  
School of Public  
Service  
MS Urban Planning  
2019

Ramapo College of  
New Jersey  
BA History and  
International Studies  
2011

## Projects

### Metastatic Lymph Node Image Detection

- Analyzed 220,000 images classifying the presence of tumor tissue to improve metastatic cancer detection in lymph nodes.
- Developed a convoluted neural network to sort images by their presence of cancer to assist physicians with a preliminary analysis of cancer spread

### Emily Dickinson Poetry Natural Language Processing

- Processed text from 3 books of Dickinson's poetry pulled from Project Gutenberg.
- Analyzed sentiment and modeled topics produced using NMF to determine a machine learning organization for the Dickinson library of poetry.

### Citi-bike User Type Classification Prediction

- Built a random forest classifier model to predict Citi bike users: annual subscribers vs customers.
- Used 8 million + bike trips during the summer of 2020 to guide Citi bike expansion and determine potential subscribers' base size.

### Domestic Film Success Regression Prediction

- Designed and trained a linear regression model predicting the gross domestic box office revenue for films.
- Scaped data from the Box Office Mojo with the hope of predicting revenues for the US market based on pre-release data.

### Non-profit Street Team Placement Analysis

- Analyzed MTA turnstile and philanthropic data to recommend optimal locations and times for a non-profit to deploy street members.

## Employment

### Metis

#### Data Scientist

New York, NY

Jan. 2021 to Mar. 2021

- Completed a 12-week immersive data science bootcamp with a focus on Python programming, data engineering, machine learning, and communication over the course of five projects. See Data Science Projects above and at this blog for more details.

### NYC Taxi and Limousine Commission (TLC)

#### Data Analyst

New York, NY

June 2018 to Jan. 2020

- Delivered sophisticated data analytics that assert questions around test quality and school performance using test scores across seven (7) languages resulting in the identification of trends in psychometric issues in exam translation, question construction and testing gaps.
- Using SQL, synthesized audit data of school performance into report recommendations which reduced noncompliance with educational standards by 80.

### NYC Department of Transportation (DOT), Master's Thesis

#### Data Analyst and Client Liaison

New York, NY

Sept. 2018 to May 2019

- Delivered an interpretative model for bicycling volumes in Queens and Brooklyn using Python to recommending future data sampling strategies and route-based modeling.
- Visualized 4 variables using Tableau that affect bicycling volumes in New York City when researching over two dozen variables and testing them against the control data.
- Coordinated the completion of a report in a team of five arranging meetings with the DOT staff resulting in a 100-page analysis of steps forward for DOT cycling team.

### Northwell Health (SIUH)

#### Emergency Department Secretary

New York, NY

Feb. 2016 to Sept. 2017

- Built physician productivity reports that examined factors impacting medical efficiency and patient satisfaction.
- Created and maintained patient charts logging discharges, admissions, services received, and consults conducted for over 300 patients daily.

### JET Program, Fukui Prefectural Board of Education (FPBE)

#### Assistant Language Teacher

Fukui, Japan

July 2014 to July 2015

### Dongmak Language Academy

#### Assistant Language Teacher

Seoul, South Korea

May 2013 to June 2014

### EPIK, Busan Metropolitan Office of Education (BMOE)

#### English Instructor

Busan, South Korea

Feb. 2012 to Feb. 2013