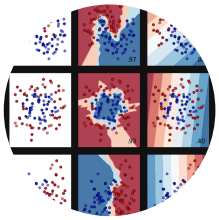
MICHAEL C. RUGGIERO

Data Scientist

@ michael@mcruggiero.com | 781-866-2191 | www.mcruggiero.com | github.com/mcruggiero



PROJECTS

Efficient Packing: **C++, Python**

- Collaborated with Dr. Sinha from MIT to simulate packing for Lay's Chips.
- Calculated moments of inertia and dynamic friction inside Blender engine.
- Scanned actual chips using 3D scanners and Mathematica visualizations.

Disaster Simulation: **Python, Osmnx**

- Identified road closures based on Twitter and MassDOT API.
- Simulated traffic based on four times of day with Google API.
- Generated disaster and optimized dispatch for police and rescue.

Natural Language Processing: **Python, TF-IDF**

- Scrapped 2000 partisan subreddits for essential information, including title, comments, and date.
- Calculated sentiment for each post, finding the relationship between emotion and participation.
- Built CountVectorizer pipeline for Logistic Regression analysis.

Campaign Planning: **Python, scikit-learn**

- Charted canvassing strategies with Medford city councilor Breanna Lungo-Koehn.
- Built interactive database for technical and non technical volunteers.
- Organized and scheduled optimal routes for multiple canvassers.

EXPERIENCE

Mathematics Teacher

Harmony School of Fine Art

2012 – 2013 | Houston, Texas

- Inspired children with uncommon mathematical ideas such as Prime Spirals.

Mathematics Department Head

University of Shanghai

2007 – 2009 | Shanghai, China

- Created unified curriculum for the A level examinations.

Mathematics Teacher

Meg's English

2005 – 2007 | Incheon, Korea

ACHIEVEMENTS

Elected to School Committee

Used k-mean clustering to organize 2017 campaign canvassing.

Automated Farming

Using Arduino sensors, built 2 acre organic, blueberry farm.

SKILLS

Programming

Python
C++

NLP

Data mining
TF-IDF

Machine Learning

Tensor Flow
Scikit-learn

Data Processing

Organizing
Value Imputation

Regression

ElasticNetCV
Logistic

Visualization

Tableau
Cufflinks

Clustering

KNN
Spectral

Presentation

Technical Studies
Persuasion

EDUCATION

Data Science Immersive

General Assembly

Feb 2019 – Present

MFA: English

Temple University

Sept 2010 – June 2012

B.Sc. Mathematics

Rhode Island College

Sept 1999 – June 2003