

MICHAEL C. RUGGIERO

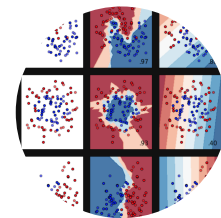
Data Scientist

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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.
- Calculated relationship between emotion and participation.
- Built CountVectorizer pipeline for Logistic Regression analysis.

Campaign Planning: Python, scikit-learn

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

EXPERIENCE

Data Scientist

D*Day Data

2015 – Present

Medford, Massachusetts

Mathematics Teacher

Harmony School of Fine Art

2012 – 2013

Houston, Texas

Mathematics Department Head

University of Shanghai

2007 – 2009

Shanghai, China

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++

Scala

Regression

ElasticNetCV

statsmodels

Logistic

Clustering

DBSCAN

KNN

Spectral

NLP

Data mining

TF-IDF

Machine Learning

Keras

TensorFlow

PyTorch

Data Processing

Organizing

EDA

Value Imputation

Visualization

Matplotlib

Tableau

Networkx

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