MICHAEL C. RUGGIERO

Data Scientist

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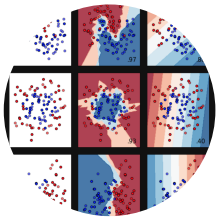

PROJECTS

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

2014 – 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++

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