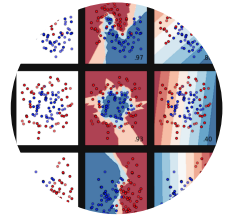# MICHAEL C. RUGGIERO

Data Scientist

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EXPERIENCE

Sr. Data Scientist
Campaign to Elect Breanna Lungo-Koehn for Mayor

📅 2019 – 2020   📍 Medford, Massachusetts

- **Scikit-learn:** Charted and mapped canvassing strategies.
- **NLP:** Scrapped 2000 partisan subreddits for essential information.
- **Python, SQL:** Built interactive database for non-technical volunteers.
- **Geolocating:** Built interactive ArcGIS visualizations to chart progress.
- **Management:** Organized routing and phone banking for canvassers.
- **Modeling:** Predicted minimum voter turnout needed by 150 votes.

Data Science Immersive
General Assembly

📅 2019   📍 Boston, Massachusetts

- **Machine Learning:** Simulated traffic based on Google API.
- **Algorithm Design:** Dispatched police and rescue for simulation.
- **Pytorch, RL:** Designed reinforcement AI system based on video feed.
- **Networkx:** Built graph representation for all Medford roads and traffic.
- **Python, Web scraping:** Identified road closures based on MassDOT API.

Simulations Consultant
Lay's Potato Chips

📅 2015 – 2017   📍 Remote Contract

- **Python, C++:** Incorporated tensors, inertia and friction into engine.
- **3D Meshing:** Scanned actual chips and programmed mesh repair system.
- **Version control:** Maintained system for between teams collaboration.

Mathematics Teacher
Harmony School of Fine Art

📅 2012 – 2013   📍 Houston, Texas

- **Management, Communication:** Turned around failing 8th grade class.
- **LaTex:** Created interactive Latex guide to algebra for students.

Mathematics Department Head
University of Shanghai

📅 2007 – 2009   📍 Shanghai, China

- **Management:** Organized teaching curriculum for three teachers
- **Calculus:** Taught Calculus I and II in an English immersion environment.

SKILLS

Programming	**Machine Learning**
Python	Keras
C++	TensorFlow
Scala	PyTorch
Regression	**Data Processing**
ElasticNetCV	SQL
Statsmodels	EDA
Logistic	Imputation
Clustering	**Visualization**
DBSCAN	Matplotlib
KNN	Tableau
Spectral	Networkx
NLP	**Cloud**
Data-mining	AWS
TF-IDF	Docker

EDUCATION

MFA: English
Temple University

📅 Sept 2010 – June 2012

B.Sc. Mathematics
Rhode Island College

📅 Sept 1999 – June 2003

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.