

Mark Espina

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DATA SCIENTIST

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Skills/Technologies

- Programming: Python (NumPy, Pandas, SKLearn, Seaborn); SQL (Postgres, MS SQL Server); GitHub
- Statistics: A/B, AB/AAB testing and experimentation; linear regression; kNN; unsupervised/supervised learning
- Business Analysis: Requirements gathering; project/scope management; client management and advocacy
- CRM/ERP Databases: Donor Perfect, Raiser's Edge, Salesforce, Volgistics

Projects

Cover to Cover: An image retrieval recommendation system for book lovers

Two-level filtering recommender system with similarity modeling, addresses decision paralysis in online book shopping

- Configured Google Cloud VMs for multi-layer perceptron (MLP), convolutional neural network (CNN), pre-trained VGG16
- Built Keras modeling pipeline for fast prototyping of ConvNet models to validate cover art and genre relationship
- Debugged legacy library of shell and python scripts for data retrieval from Amazon.com to populate machine learning model

Predicting Firefighter Response Times

Machine Learning modelling of the Response Times of New York City Firefighters

- Created data cleansing and joining pipeline with python (pandas, Regex) for multiple disparate datasets (>2M rows)
- Performed multivariate testing of time series, neighborhood, incident type data, using t-tests to identify key trends
- Visualized confirmed data trends with Python (matplotlib, seaborn), presented in Jupyter Notebook, PowerPoint

STAR Initiative - Streamlined Tech for Automated Reporting

Automated data reporting workflow process, cleared 6-month manual data entry back-log within 2 weeks of release

- Wrote DDL SQL queries in SQL Server to store new data, DML SQL queries to track new dataset in MS Access
- Managed database with VBA and MS Access Debugger, built automated tests for data accuracy

Experience

Volunteer Outreach Coordinator - Temple Operations at Dharma Rain Zen Center

Sept. 2018 - Present

- Serving as a representative on leadership committee, acting as a liaison for temple staff to oversee volunteer recruitment
- Manage Volunteer outreach and tracking on Volgistics database

Data Specialist, Sunshine Division Food Pantry

Sept. 2017 - July 2018

- Researched and implemented cross-functional data management and ETL processes and practices for data tracking
- Automated ETL processes to pull data from Microsoft Access, Excel, and Donor Perfect using python
- Company lead for data analysis across all platforms, presented to development, finance, and operations staff

Emergency Financial Assistance Coordinator, Catholic Charities of Eastern Washington

Aug. 2016 - July 2017

- Responsible for providing financial reports to senior management to guide decision making for charitable giving
- Performed community outreach, business requirements gathering to inform accuracy of reports, organization direction

Education

THINKFUL Data Science Program

Mar. 2019

Machine Learning, K-means clustering, KNN, penalized linear modeling, ensemble and boosting methods

Fordham University B.A. in Sociology

May 2016

Social Research Methods, Macroeconomics, Biopsychology

Awards/Honors

Portland Police Bureau Medal of Commendation in Community Service

2018