

MARK ESPINA

m.espina03@gmail.com

(631) 835-0250

DATA SCIENTIST

github.com/mespina1

Portland, OR

Summary

Non-profit professional turned data scientist, seeking opportunities to help companies solve their biggest data challenges. I am particularly interested in applications of deep learning with respect to computer vision

Skills

Advanced: Python, SQL, Numpy, Pandas, SciKit-Learn API, Matplotlib, Seaborn

Proficient: neural network modeling with Keras, Image processing with OpenCV, Google Cloud SDK command-line tools

Projects

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

02/2019

Implementation of 2-level filtering recommender system with similarity modeling applied to the Amazon book covers dataset to address decision paralysis in online book shopping

- Configured GPU enabled Ubuntu instance on Google Cloud for training deep learning models
- Built pipeline for fast prototyping of ConvNet model architectures
- Debugged broken crawler scripts for data retrieval from Amazon.com
- Researched different approaches and algorithms for content-based image retrieval systems to develop the final application

Predicting Firefighter Response Times

11/2018

Analysis of factors affecting the response times of New York City firefighters with supervised learning

- Preprocessed large dataset (>2M rows) for exploratory data analysis with Pandas and Seaborn
- Performed hypothesis testing with T-tests to identify key features and trends in the dataset
- Engineered new features for manual dimensionality reduction to validate results from statistical analysis

STAR Initiative - Streamlined Tech for Automated Reporting

02/2018 - 04/2018

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

Back-end: MS SQL Server 2012, Front-end: MS Access 2010

- Wrote DDL SQL queries in the back end to store new data
- Wrote nested DML SQL queries in the front end for data tracking
- Performed feature testing and development with MS Access Debugger
- Used VBA to prevent invalid data entries
- Linked queries to new data report for end-user-friendly functionality

Professional Experience

Sunshine Division Food Pantry

Portland, OR

Data Specialist - Client Services

01/2018 - 07/2018

- Implemented company-wide ETL policies and practices for data tracking across multiple departments
- Wrote queries and Python scripts to collect data from MS Access, Excel and web-based CRM for use by fundraising and development staff

Education

THINKFUL Data Science Program

07/2018 - 03/2019

Intensive 1000-hour data science curriculum emphasizing statistical concepts and machine learning: K-means clustering, KNN, penalized linear modeling, ensemble & boosting methods for regression and classification.

Fordham University B.A. in Sociology

08/2012 - 05/2016

Honors

Portland Police Bureau Medal of Commendation in Community Service

2018

Americorps Member of the Month

2017