Mo Messidi

Data Scientist · Graduate Student at Georgia Institute of Technology (MS CS)
Fountain Valley, CA, USA
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Skills

Programming Languages	Python · SQL · Scala · C++ · SattLine
Machine Learning / Analytics	NumPy · Pandas · Scikit-learn · Tensorflow · Keras
Distributed Computing	Spark · Hadoop · Hive · Pig · AWS Cloud
EDA & Visualization	D3.js · Tableau · Matplotlib · OpenRefine

Education

Georgia Institute of Technology *Aug 2018 - Expected May 2020*

- M.S. in Computer Science, Machine Learning Specialization

Texas A&M University *Aug 2009 - May 2013*

- B.S. in Electrical Engineering, Computer Engineering and Systems Specialization

Experience

Graduate Researcher - Data Analytics *Aug 2018 - Present*

Publication: A Machine Learning Approach for Evaluating and Predicting US Electoral Fundraising *Fountain Valley, CA*

- Applied extracting, transforming, loading (ETL) methods to produce a meaningful dataset from the U.S. Census and U.S. FEC APIs
- Applied Principal Component Analysis (PCA) and K-means clustering on zipcode indexed demographic data
- Built linear regression models to quantify fundraising performance and identify outlier zipcode areas for fundraising opportunities
- Developed an interactive data visualization dashboard that allows users to investigate areas with unmet fundraising potential
- Presented published work at GeorgiaTech's Career, Research, and Innovation Development Conference (CRIDC)

Software Engineer *Sep 2016 - Aug 2018*

Novo Nordisk Engineering *Copenhagen, Denmark*

- Developed software applications for distributed pharmaceutical manufacturing systems using object-oriented design principles
- Collaborated with cross-functional teams to define requirements, identify solutions and resolve issues
- Interfaced with stakeholders throughout the entire software development life cycle

Engineer - Operations Analytics *Aug 2014 - Sep 2016*

A.P. Moller - Maersk Oil *Copenhagen, Denmark*

- Analyzed sensor data using SQL to identify and solve facility operational issues for offshore oil rigs
- Developed an analytical model that predicts electrical fault locations using sensor data which massively improved task time
- Presented a successful business case to executive management about opportunities in the decommissioning market
- Graduated from the company's graduate rotational program that focuses on developing technical skills and business acumen

Research Assistant - Biomedical Signal Processing *May 2013 - Feb 2014*

Publication: Automatic Identification of Slow Wave Sleep Using A Single Electro-oculogram Channel *Doha, Qatar*

- Applied data cleaning, normalization and transformation to extract meaningful features from raw time-series EEG,EMG,EOG data
- Developed a rule-based model for classifying deep sleep using eye movements data (EOG) that achieved 90.5% accuracy in testing
- Presented published work at IEEE's Middle East Conference on Biomedical Engineering (MECBME)

Selected Projects

Customer Churn Prediction For a Music Subscription Service

- Applied exploratory data analysis on demographic, transactions and usage data to discover key factors that affect user chrun
- Build and compared multiple predictive models (decision tree, neural network, gradient boosting, k-NN, SVM) using Python
- Achieved a significant model accuracy score (AUC = 0.88) during testing using k-fold cross validation

Phishing Email Detection From Email Body Text

- Experimented with natural language processing (NLP) methods (word embedding) to extract features from a dataset of email bodies
- Developed a classification model that detects if an email is a phishing attempt or not based on the text body of the email