# TAYLOR MARTIN

#### DATA SCIENTIST/MACHINE LEARNING ENGINEER

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https://taylor-m.github.io

5+ years Python programming and statistical analysis experience. Advanced problem-solving ability from an undergraduate background in physics and experience as an undergraduate biomechanics research analyst at The University of Mississippi. Hotty Toddy! I've held roles in the payment processing industry and the finance industry as an associate data scientist working on models for optimization, forecasting, and other business-oriented tasks. I also served 6 years in the MS Army National Guard as an infantryman while I was an undergraduate student. Looking for a data-centric role for further experience while completing my Masters in data science with a specialization in machine learning.

# **SKILLS**

Tools: Python, SciKit-Learn, TensorFlow, Seaborn, Jupyter, Plotly, Tableau, SQL, R shiny, Apache Spark, dplyr, MatPlotLib, Pandas, Numpy, HTML, CSS, Streamlit

Statistics: predictive analytics/forecasting, Monte Carlo simulations, Linear/Logistic regression, hypothesis testing,

Data Processing: missing data imputation, transformation (binarization, standardization, scaling, etc.)

Machine Learning: feature engineering, dimensionality reduction, supervised learning (classification

& regression), hyper-parameter tuning, neural networks, deep learning

Natural Language Processing: Latent semantic analysis, tokenization, regex string methods, Word2Vec

# **PROJECTS**

#### Cardiovascular Disease Patient Classifier/Predictor

- Created supervised learning model to both classify and predict cardiovascular disease
- Developed an interactive web application for data visualization and model evaluation with user input prediction tool
- Tech Used: sklearn, streamlit, plotly, numpy, pandas, matplotlib, xgboost, seaborn

#### **Hepatocellular Carcinoma Patient Clustering Model**

- Built a clustering model for HCC patients
- Analyzes cluster statistics regarding mortality data for patient outcome insight
- Tech Used: prince (dimensionality reduction), UMAP, k-medoid/DBSCAN/affinity propagation clustering, KNN Imputation

#### **Hospital Length of Stay Analysis**

- Developed analysis of the correlation between patient data & length of stay
- Seek to gain insights into risk factors affecting a patient's length of stay for healthcare management
- Tech Used: scipy, non-parametric testing, confidence intervals, common language effect size, data exploration/visualization

#### **EDUCATION**

# The University of Mississippi

### Bachelors, Physics

- Medical physics
- Scientific programming

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# Eastern University

### Master of Science in Data Science

 Emphasis in Machine Learning (Supervised & Unsupervised), Deep Learning, Predictive Modeling, Time Series Analysis, Natural Language Processing

# Thinkful

#### Certificate, Data Science

Oct. 2019 - March 2020

- Experimental design, supervised learning, and unsupervised learning capstones
- Advanced topics: big data, natural language processing, time series analysis, neural networks, deep learning, and neural networks

### **EXPERIENCE**

#### **Associate Data Scientist**

**EquiPro Holdings | Oxford, MS** 

**April - September 2021** 

- Processed and leveraged business data for making business decisions
- Built predictive machine learning models to increase operational efficiency and maximize profit margins
- 3 companies under EquiPro Holdings LLC:
  - Security Credit Services debt buying industry
  - Action Auto buy here, pay here auto sales
  - Life Dental Group dental practice group

#### References:

John Hamilton, CFO: 205-936-9457

Harrison Bryant, Senior Controller: 601-415-6833

**Technical Operations Analyst** 

ePayment America (Fiserv ISO payment processor) | Memphis, TN August 2018 - September 2019

- Identified transaction anomalies by analyzing transaction data and solving client problems
- expanded business offerings by developing and implementing new payment technology

**Undergraduate Researcher (Biomechanics Data)** 

Soair, LLC | Oxford, MS

January - December 2016

- Discovered patient patterns by analyzing gait and stride data
- Developed algorithm for fall risk assessment score
- Captured 1D biomechanical data with ultrasonic transduction
- National Center for Physical Acoustics affiliated LLC

Infantryman/Platoon Support Gunner

**MS National Guard** 

March 15- December 2018

- Spent the summer of 2013 before my freshman year at basic training in Fort Benning, GA
- The summer post freshman year I spent in Fort Benning again completing infantry school
- Was an infantryman in a mechanized infantry unit in Senatobia
- Was an M240 Bravo platoon support gunner until honorably discharged 12/19