

Ty Painter

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EDUCATION

Vanderbilt University – Data Science Institute

Nashville, TN

Master of Science in Data Science

May 2022

- GPA: 3.89
- Extracurricular: Vanderbilt Football Student Video Coordinator, Teaching Assistant – Exploratory Data Analysis and Modeling & Machine Learning I
- Relevant Coursework: Probability & Statistics, Modeling & Machine Learning, Data Management Systems, Algorithms, Big Data Scaling, Social Network Analysis, Managerial Finance, Corporate Valuation, Derivatives Markets (at Owen Graduate School of Management)

Shippensburg University – John L. Grove College of Business

Shippensburg, PA

Bachelor of Science in Business Administration

May 2019

Major: Management Information Systems & Finance, Concentration: Personal Financial Planning

- GPA: 3.89
- Honors: *summa cum laude*, Beta Gamma Sigma member (Top 10% of Business School), Dean's List, Google Cloud Academic All-District Baseball Team
- Extracurricular: NCAA Division II Baseball Team, Campus Food Committee member
- Relevant Coursework: Applied Project Management, Applied Calculus, Business Systems Analysis & Design, Database Applications, Applied Company & Security Analysis, Investments

SKILLS

Relevant Skills: Data Analysis, Database Management, Data Visualization, Machine Learning (supervised, unsupervised)

Related Platforms: AWS EC2, GitHub, Hadoop, Power BI, Python (Numpy, Pandas, PySpark, Scikit-learn), R, SQL, Tableau, Linux

EXPERIENCE

LKQ Corporation (provider of alternative and specialty automotive replacement parts)

Antioch, TN

Data Analyst Intern – IT End User Services

July 2021 – April 2022

- Reduced IT quarterly reporting effort by ~200% by streamlining data sources to Power BI through Python scripts.
- Customized and transformed weekly ServiceNow reports into finalized data files.
- Established a file structure to automate loading previous year data files into Python to produce 40-50 summary visualizations.
- Connected Python Scripts to Power BI to generate ad-hoc visualization dashboards for IT departmental quarterly reporting.

Vanderbilt Data Science Institute

Nashville, TN

Data Science Research Assistant – NFL Financial Literacy Project

November 2020 – February 2021

- Performed data cleaning processes in Python JupyterLab on public, web-scraped NFL player contract data.
- Transformed JSON files into data frames to improve efficiency of financial calculations and roster probabilities.
- Utilized the nbdev package to create tests and establish a repeatable documentation system for future statistical modeling.

Ntelicor (provider contractor of data solutions designed to optimize the business of healthcare)

Camp Hill, PA

Business Analyst – Medicare Part B

July 2019 – August 2020

- Maintained and enhanced the Medicare Part B claims processing system.
- Conducted research and analysis on 3-5 customer and user change requests concurrently during each quarterly release.
- Described concise functional business requirements to meet customer needs for each change request.
- Completed documentation changes on 30-80-page documents that described new system operations.
- Designed and executed 20-200 case test plans to ensure accurate system processing.
- Resolved any possible defects or problems associated with implementation.

PROJECTS

Deriving Alpha from News with AllianceBernstein – Data Science Capstone Semester Project

Spring 2022

- Gathered and filtered news sources from the GDELT Event Database accumulating hundreds of gigabytes of data.
- Web scraped news articles to generate daily sentiment scores using a HuggingFace NLP transformer model.
- Utilized AWS EC2 cloud computing to calculate sentiment and readability features associated with daily stock ticker news.
- Constructed long-short portfolios that outperformed the S&P 500 index by over 2%.

MLB Pitch Prediction – Case Studies in Data Science Final Project

Fall 2021

- Merged Kaggle pitch data from 2015-2018 and calculated pitcher and batter tendencies based on game situations.
- Developed a predictive model to predict pitch type considering game scenarios and batter vs. pitcher matchups.
- Transferred the model into an interactive Streamlit dashboard to allow users to customized player and situational inputs.

Customer Segmentation – Data Science in Teams Semester Project

Spring 2021

- Created an interactive Tableau dashboard producing visualizations regarding product and geographic sales data.
- Generated predictive models using scikit-learn to predict customer product purchases to improve target marketing.

NYPD Crime – Data Management Systems Final Project

Spring 2021

- Designed and implemented a back-end MySQL Workbench database containing crime information.
- Connected the back-end database to a front-end PHP user interface allowing for user data handling.