Chad Breece

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San Francisco, CA

EXPERIENCE

Data Scientist - Machine Learning Engineer San Francisco, CA

Advance Auto Parts July 2022 – Present

Technologies used: Python, PySpark, Databricks, AWS, Git, Tensorflow, Ray, XGBoost

- Contributing member of the Advance AI team, working cross-functionally to develop parallelized large-scale model solutions to various business problems.

- Lead NC State IAA Masters students in analyzing patterns and developing predictive models to understand how extreme weather events impact our supply chain and sales both online and in-store.

- Updating the data pipeline and ML solution for company-wide demand prediction across all SKUs, resulting in process optimizations that deliver savings exceeding $100 million. Leading the development of XGBoost model that trains on 80M row dataset, parallelized over multiple GPUs, with experiment tracking and predictions on 3.2B observations weekly. Leading team in learning and utilizing Databricks for parallelization, productionalization, and managing ML model solutions.

- Partnering with the supply chain team to enhance lead time accuracy from manufacturer to warehouse, reducing the Mean Absolute Error (MAE) from 9 days to 2 days using an XGBoost model deployed on AWS. Additionally, leveraging this improvement to generate weekly warehouse volume predictions, enabling more efficient labor planning. Achieved an accuracy boost from 70% to 82%.

Data Scientist Irvine, CA

Appriss Retail February 2020 – September 2021

Technologies used: Python, SQL, Excel, SAS

- Contributing member of the Data Science team, collaborating with Engineering and Marketing teams.

- Utilized SQL, Tableau, Excel, and automated with Python, to analyze data, generate visualizations, and extract insights that demonstrated the significant value of our product to leading nationwide retail companies.

- Developed and maintained models within the product to meet client objectives, collaborating with Engineering for seamless implementation.

Data Science Intern Irvine, CA

Black Knight Financial Services June 2019 – August 2019

Technologies used: Python, PySpark, SQL

- Employed Spark, PySpark, and SQL to analyze real estate and mortgage data.

- Developed machine learning and functional modules for the Rapid Analytics Platform, a cloud-based cluster-computing platform, in collaboration with the Data Science team.

EDUCATION

University of California, Berkeley Berkeley, CA

Master of Arts, Statistics Graduated - May 2022

Concentration: Machine Learning

University of California, Irvine Irvine, CA

Bachelor of Science, Mathematics Graduated - December 2019

Concentration: Data Science (Computer Science and Statistics)

TECHNOLOGIES/PACKAGES

Python (Scikit-learn, NumPy, PySpark, XGBoost, Hyperopt, Ray, Modin, Pandas, Matplotlib, Tensorflow, PyTorch), Databricks, SQL, AWS, Git, VS Code