David Sanchez

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GitHub: https://github.com/davidsanchez222 | Handwriting Recognition Code: https://bit.ly/handwritingcode

SKILLS

Programming Languages: Python • C • JavaScript • HTML • CSS
Big Data & Machine Learning: SQL (sqlite3) • MongoDB • pandas • Spark • Hadoop • matplotlib • TensorFlow • Pytorch
Miscellaneous Technologies: Docker • Kubernetes • AWS • Statistics • Hypothesis testing • OOP • APIs • Excel • Git
Language: English • Spanish

PROFESSIONAL EXPERIENCE

Fluence Energy Atlanta, GA
Data Engineering Intern June 2023 – September 2023

- Focused on analyzing why batteries degrade and extracting important data to explain it.
- Analyzed battery rack current data and found that bottom racks on the battery cores had higher current.
- This analysis was important when feeding battery data into a machine learning algorithm.
- Created a Python wrapper for a REST API for battery storage centers.
- Wrote a script to simultaneously send power commands to batteries and collect data on them.
- Assisted on another script that collected battery data via Modbus connections.

Singularity Capital Atlanta, GA
Software Engineer Intern May 2022 – August 2022

- Utilized Yahoo Finance Python wrapper to access historical data on stock indices such as SPY and QQQ.
- Developed script that track the starts and ends of bull and bear markets in the past and calculated max drawdown.
- Created a market scanner entry signal based on relative value for highly correlated equity pairs like HD and LOW.
- Extensively back tested models in parallel and avoided common data leakage problems found in financial time series datasets.

PROJECTS

NBA Betting
https://github.com/david03sanchez/nba_bets

- Gathered and stored game and player data in MySQL database using NBA API endpoints.
- Cleaned data using built-in pandas methods and regular expressions to create a DataFrame used to train an XGBoost regression model.
- Used NBA data insights to create informed programs to calculate over/under odds to compare against bookmaker lines.
- Used web scraping library BeautifulSoup to get historical betting odds for NBA games used for back testing models.
- Aggregated and created various Basketball statistics to use as predictive features in machine learning models.
- Accessed Google Maps API to calculate distances between NBA stadiums; used as an important feature in forecasting model.
- Used scikit-learn Python library to train machine learning algorithms such as decision trees, k-means clustering and k-nearest neighbors.
- Created function to retrieve the NBA games of the day and run the trained model to generate daily predictions.

EDUCATION

UNIVERSITY OF GEORGIA – B.S. COMPUTER SCIENCE – 2026

Cumulative GPA: 3.9 / 4.0