Colby Reichenbach

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SUMMARY

Data analyst skilled in Python, SQL, and machine learning, with hands-on experience in predictive modeling, data visualization, and A/B testing. Developed multiple end-to-end projects, applying statistical methods to real-world datasets. Passionate about leveraging data to drive insights and optimize decision-making.

PROJECTS

Customer Churn Data Insights and Prediction

Skills: Python, Machine Learning, Data Visualization, Predictive Modeling, Feature Engineering

- Built a customer churn prediction model using Logistic Regression (84% accuracy) to identify high-risk customers.
- Conducted Exploratory Data Analysis to uncover key churn.
- Recommended data-driven retention strategies, improving customer engagement and long-term contracts.

Marketing Campaign A/B Testing and Funnel Analysis

Skills: Python, A/B Testing, Statistical Analysis, Marketing Analytics, Data Visualization

- Analyzed 1,143 ad campaigns, identifying high-ROI strategies using A/B testing & Chi-Square analysis.
- Uncovered inefficient ad spending, leading to budget reallocation & 8x conversion improvement.
- Built conversion funnels to optimize user engagement, click-to-conversion rates, and ad creatives.

Finance Data Pipeline & Machine Learning | (Currently in Development)

Skills: Python, SQLite, Yahoo Finance API, LSTM, XGBoost, Real-Time Data Processing

- Built a real-time financial data pipeline with Yahoo Finance API, updating stock data every 15 minutes.
- Developed machine learning models for market anomaly detection & stock forecasting.
- Designed a live dashboard via Streamlit visualizing market trend, sector performance, and predictive analytics.

E-Commerce Analytics Dashboard

Skills: Data Visualization (Streamlit, Plotly), SQL, Python

- Built an E-commerce dashboard (Python, Streamlit, Plotly, SQL) visualizing 2.5 years of sales, product, and shipping KPIs for actionable insights.
- Analyzed customer behavior (purchasing patterns, payment preferences) & geographic sales to identify targeted operational/marketing opportunities.
- Ensured secure credential management (Streamlit Secrets) & engineered a modular design for enhanced maintainability and scalability.

EDUCATION

University of North Carolina at Chapel Hill August 2024
BS in Biology, Minor in Data Science
- *Relevant Coursework: Statistics and Data Science, Machine Learning and Ethics, Scientific Programming*

SKILLS

- **Programming & Data Analysis:** Python (Pandas, NumPy, Scikit-Learn), SQL, R
- **Machine Learning & AI:** Regression, Classification, Time Series Forecasting, Anomaly Detection
- **Data Engineering & Databases:** SQL, Web Scraping, API Integration & Data Retrieval
- **Data Visualization & Reporting:** Tableau, Matplotlib, Seaborn, Plotly, Streamlit
- **Statistical Analysis:** Hypothesis Testing (A/B Testing, T-Tests, Chi-Square, Z-Tests, ANOVA)
- **Soft Skills:** Data Storytelling, Business Insights, Communication, Problem-Solving

PROFESSIONAL EXPERIENCE

Target, *Team Member*, Chapel Hill, NC   Nov. 2021 – Pres.
- Assisted customers and maintained inventory to support **operational efficiency.**
- Collaborated with team members to **analyze sales trends & improve product placement.**

Mosquito Authority, *Facilities Technician*, Winston Salem, NC   May 2022 – Aug. 2022
- **Maintained and repaired equipment** to ensure smooth field operations.
- Documented inventory & expenses, helping optimize **resource allocation.**

*GRIT Performance***,** *After-School Program Facilitator,* Advance, NC   Jan. 2016 – Sep. 2019
- Organized and supervised **athletic & educational programs** for students.
- Built **strong relationships with parents & staff** to enhance student engagement.