**[Turning the Tide on Telecom Churn: A Data-Centric Approach](http://localhost:4000/portfolio/new_customer_churn/)**

**From Numbers to Insights: My Journey**

**Overview**: In the dynamic landscape of the telecom sector, deciphering customer churn patterns became my mission. Utilizing Python as my primary tool, I blended data science expertise with strategically applied accounting experience to unravel the reasons behind customer turnover, aiming to forge strategies that enhance customer retention and drive business growth. This project represents not only a technical challenge but also a perfect fusion of my analytical skills with real-world business applications.

**The Data Story**

**Delving into Customer Behavior**: Armed with the Orange Telecom’s Churn Dataset, I embarked on a journey not just through data but through the stories behind the numbers. My objective was to integrate statistical analysis with practical insights, transforming raw data into narratives that shed light on customer experiences.

**Balancing the Data Scales**

**Overcoming Data Challenges**: Tackling an imbalanced dataset, I employed strategies akin to achieving a balanced budget, ensuring fairness and accuracy in our analysis.

* **Fair Data Sampling**: By using Stratified K-Fold Cross-Validation, I ensured every segment of the dataset was fairly represented, an approach reflecting my background in maintaining rigorous standards in financial reporting.
* **Fine-Tuning Our Approach**: In adjusting the Random Forest and Gradient Boosting models, I drew upon my skills in identifying and reacting to emerging trends, much like revising a financial forecast for accuracy.

**Key Discoveries**

**Finding What Matters**: The data revealed critical churn drivers: high usage patterns, international plan subscriptions, and frequent customer service interactions. My ability to distill these findings into actionable insights was enhanced by my understanding of how such factors impact a business’s performance and customer satisfaction.

**Practical Strategies and Insights**

**Turning Data into Action**: This project transcended beyond number crunching. It was about crafting actionable strategies – improving customer service, optimizing pricing plans, and enhancing service offerings, informed by a data-driven understanding of customer needs and market dynamics.

**Reflections and Looking Ahead**

This exploration marked significant growth in my data science capabilities, reaffirming the value of adaptability and strategic thinking in a rapidly evolving industry. It underscored my unique ability to synthesize data insights with business acumen, preparing me to tackle modern challenges in a data-centric world.

**A Fusion of Disciplines for Future Innovations**

Venturing into telecom churn analysis showcased a powerful combination of data science and selective application of accounting knowledge, ready to address the challenges of the digital era.

**Discover the Full Story**

Dive into the comprehensive analysis [here](http://127.0.0.1:4000/customer-churn/).

**Explore the Technical Journey**

For a detailed breakdown, including code and visuals, view the project notebook on [NBViewer](https://nbviewer.org/github/timothyrobbinscpa/new_customer_churn/blob/master/src/customer_churn.ipynb).