**Turning the Tide on Telecom Churn: A Data-Centric Approach**

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**Excerpt:** "Explore how decades of accounting experience and advanced data science techniques converge to tackle telecom churn, enhancing customer loyalty and business sustainability."

![Customer Churn](/assets/images/customer\_churn/download (1).jfif)

**Journey Through Data: Bridging Numbers and Insights**

**Overview:** With nearly three decades of professional accounting experience, including expertise in revenue recognition and SaaS/software industries, I approached the telecom sector's churn challenges. Utilizing Python, I decoded complex customer behaviors, translating intricate data patterns into actionable business strategies to boost customer retention and growth.

**Narratives from Data: Telling Stories Beyond Numbers**

**Deep Dive into Customer Behavior:** Leveraging my Master of Science in Data Science, I utilized Python and R to delve into the Orange Telecom’s Churn Dataset. My goal was to transform raw data into insightful narratives that highlight customer experience trends and their implications on churn.

**Tech Toolkit: Powering Analysis with Cutting-Edge Tools**

**Skillful Application of Advanced Tools:** My extensive background in implementing and utilizing top ERP systems like NetSuite, SAP, and Oracle, combined with data manipulation expertise using SQL, equipped me to handle large datasets efficiently. This project utilized Python, supported by libraries such as Pandas and Scikit-Learn, to conduct predictive modeling and data visualization with Matplotlib and Seaborn.

**Mastering Data Complexity: Preprocessing to Predictive Insights**

**Strategic Data Handling:** The skills honed over two decades in fast-paced, dynamic environments in Silicon Valley were applied to streamline data processes from cleaning to predictive analysis, ensuring integrity and relevance of the insights derived.

**Strategically Balancing Data: Techniques for Equitable Analysis**

**Advanced Statistical Techniques:** My foundation in complex revenue arrangements and software implementations informed the advanced statistical techniques used to balance the dataset, including Stratified K-Fold Cross-Validation and targeted approaches like weight adjustments and subsampling.

**Precision Tuning for Predictive Success**

**Optimizing for Impact:** The models were fine-tuned to focus on recall, leveraging my analytical acumen to ensure that significant churn predictors were not overlooked. This strategic tuning directly influenced the effective retention strategies developed.

**From Insights to Actions: Transforming Analysis into Strategy**

**Key Discoveries and Practical Strategies:**

* **Insights into Business Impact:** The analysis identified high usage patterns and service interactions as key churn drivers, insights that were used to devise strategies that markedly improved customer service and optimized pricing plans, significantly enhancing customer satisfaction and retention.

**Reflecting on Growth: Lessons from the Data Frontier**

This project not only reinforced my adaptability and strategic thinking but also showcased my unique ability to integrate deep accounting insights with advanced data science, preparing me to tackle future industry challenges with innovative solutions.

**Innovating at the Intersection: Data Science Meets Business Acumen**

The synthesis of rigorous data science with decades of accounting experience in SaaS/software industries uniquely positions this project at the forefront of addressing complex challenges in telecom churn.

**Explore the Full Analysis**

Dive deeper into the comprehensive study [here](https://chat.openai.com/customer-churn/).

**Technical Deep Dive**

Explore the detailed breakdown, including methodologies and visual insights, on [NBViewer](https://nbviewer.org/github/timothyrobbinscpa/new_customer_churn/blob/master/src/customer_churn.ipynb).

**Join the Conversation**

I invite feedback and discussion on this project and my broader journey into data science. Connect with me on [LinkedIn](https://chat.openai.com/g/g-HMNcP6w7d-data-analyst/c/87f0a4b4-7f57-43f1-87bf-4b8f754a0eef) to share ideas and explore synergies.