MEDITRACK

MediTrack: Optimizing Telehealth Retention

An End-to-End Product Analytics Case Study

Christopher Bonnin

1. The Challenge

High Drop-off & User Churn

The Context:
MediTrack is a telemedicine app allowing patients to book video consults.

The Problem:
Despite high acquisition, activation rates are low.

The Metric:
We observed a 60% drop-off in the booking funnel.

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Technical Architecture & Tools

I built the entire pipeline from raw data generation to final product prototyping.

Ingestion: Python (Faker) & Polars (Data Cleaning)

Storage: Google BigQuery (Data Warehousing)

Analysis: SQL & Amplitude (Behavioral Analytics)

Prediction: Scikit-Learn (Churn ML Model)

Strategy: Figma (Prototyping)

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Diagnosing the “Funnel of Death”

Action: Tracked user journey with Amplitude.

Finding: Bottleneck at "View Doctor Profile" step.

Insight: Users leave when no availability is found.

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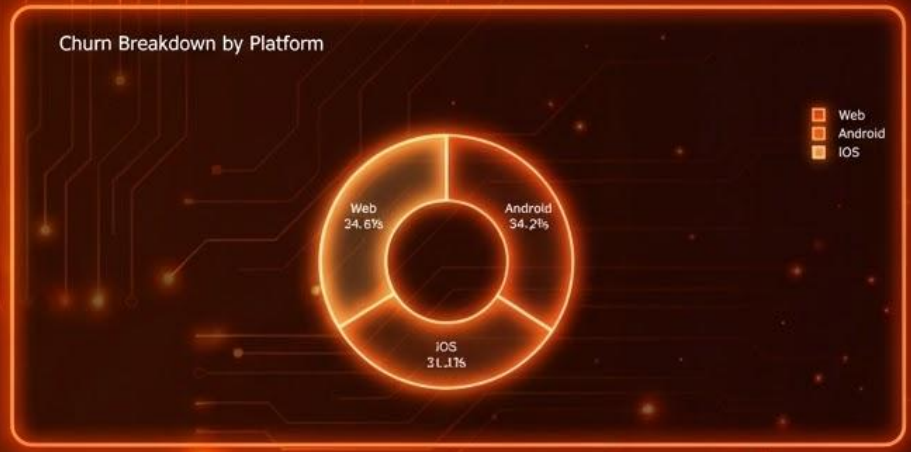
Who is Churning?



- Analyzed demographic and platform performance using Python and Plotly
- **Finding 1:** User Activity is highest Mondays and Thursdays, and steady during the weekends.
- **Finding 2:** The percentage of churned users is quite even amongst the three platforms: (Web 34.6%, Android 34.2%, iOS 31.1%)

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Proactive Churn Prevention

Built a Random Forest Classifier to predict churn probability

Key Drivers: Total_Events and Days_Since_Signup

Application: Integrated into a Streamlit dashboard for the Product Team to simulate user risk scenarios

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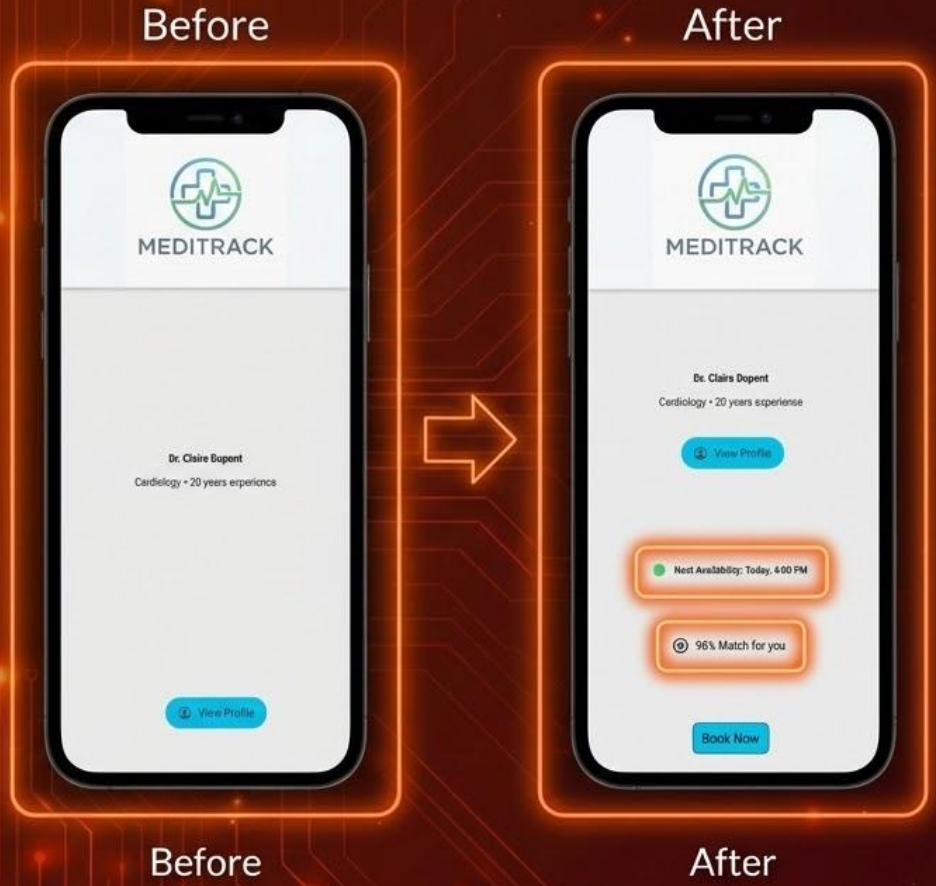
Quick-Book: Reducing Friction

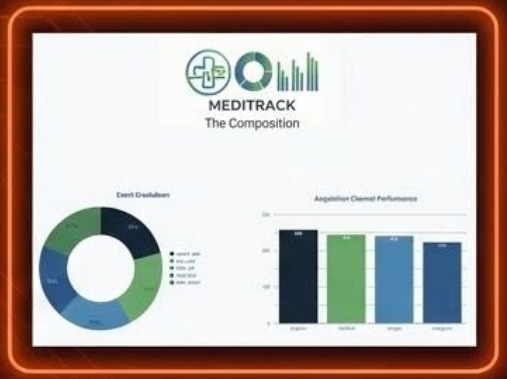
- **Hypothesis:** Surfacing availability *before* the click will increase conversion
- **The Fix:** Redesigned the Search Card to include “Next Available Slot” and “ML Recommendation”



Executive Reporting & KPIs

- Created an automated dashboard in Looker Studio

- Tracks DAU (Daily Active Users), Revenue, and Funnel Conversion in real-time



The Launch Plan (A/B Testing)

Measuring Impact

Experiment:
A/B Test (50/50 split) on iOS users.

Success Metrics:
Increase Search-to-book conversion from 40%->50%.

Guardrail Metric:
Ensure “Time to Book” decreases (efficiency).

Next Steps:
If successful, roll out to Android fixing performance bugs.

Summary & Impact

Project Impact

Data

Engineered a pipeline for 5000+ events

Insight

Uncovered a 60% funnel drop-off

Action

Proposed a UI change estimated to boost revenue by 10%