Customer Shopping Behavior Analysis

Analyzing 3,900 purchases to uncover spending patterns, customer segments, and product preferences that drive strategic business decisions.

3,900
Total Purchases
Transactions analyzed across various product categories

18
Data Points
Features covering demographics, purchases, and behavior

$60
Avg Purchase
Mean transaction value across all customers

3.75
Avg Rating
Customer satisfaction score out of 5.0

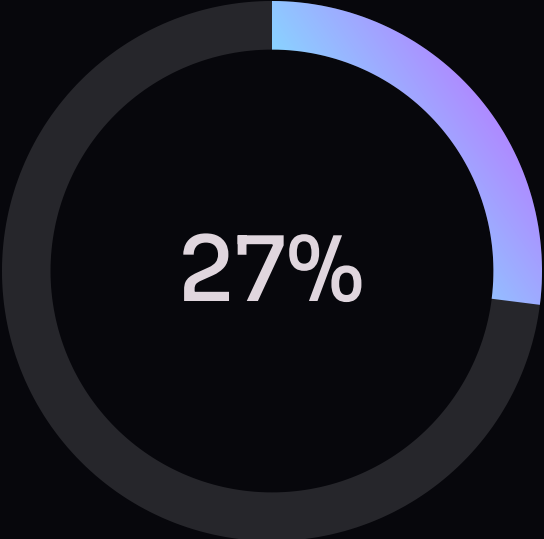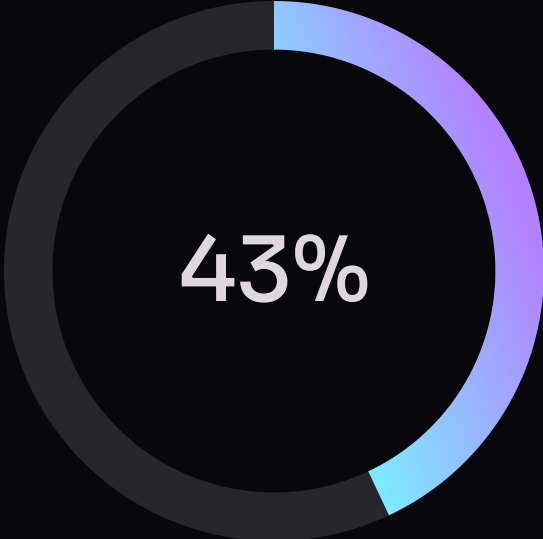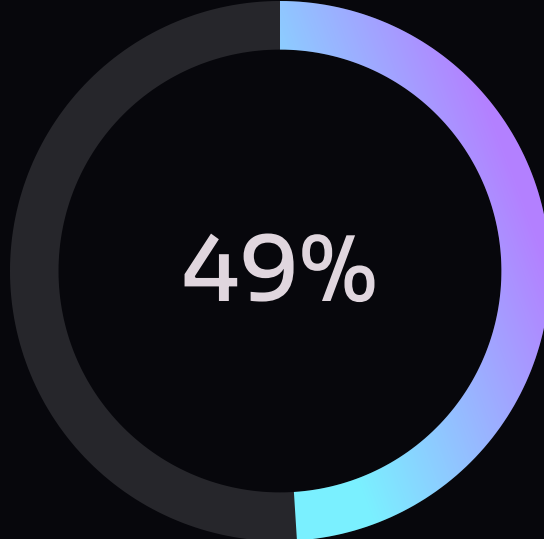
01
Data Preparation
Cleaned dataset, handled 37 missing review ratings, standardized columns to snake case, and engineered age groups and purchase frequency features.

02
SQL Analysis
Performed 10 business queries in PostgreSQL analyzing revenue by gender, discount behavior, product ratings, shipping preferences, and customer segmentation.

03
Visualization
Built interactive Power BI dashboard presenting key insights on customer behavior, product performance, and revenue drivers.

Key Findings

- Male customers generated $157,890 vs. female $75,191
- 80% of customers classified as Loyal (3,116 of 3,900)
- Express shipping users spend $2 more on average than standard
- Gloves rated highest at 3.86/5.0 average

Strategic Actions

- Promote subscription benefits to increase enrollment
- Launch loyalty rewards for repeat buyers
- Review discount policy to balance sales and margins
- Target high-revenue age groups with focused campaigns

27%
Subscription Rate
1,053 of 3,900 customers are subscribers

43%
Discount Usage
1,677 purchases included discount applications

49%
Hat Discounts
Highest discount rate among all products