ATLASSIAN DataSoc

CHURN PREDICTION AND PREVENTION

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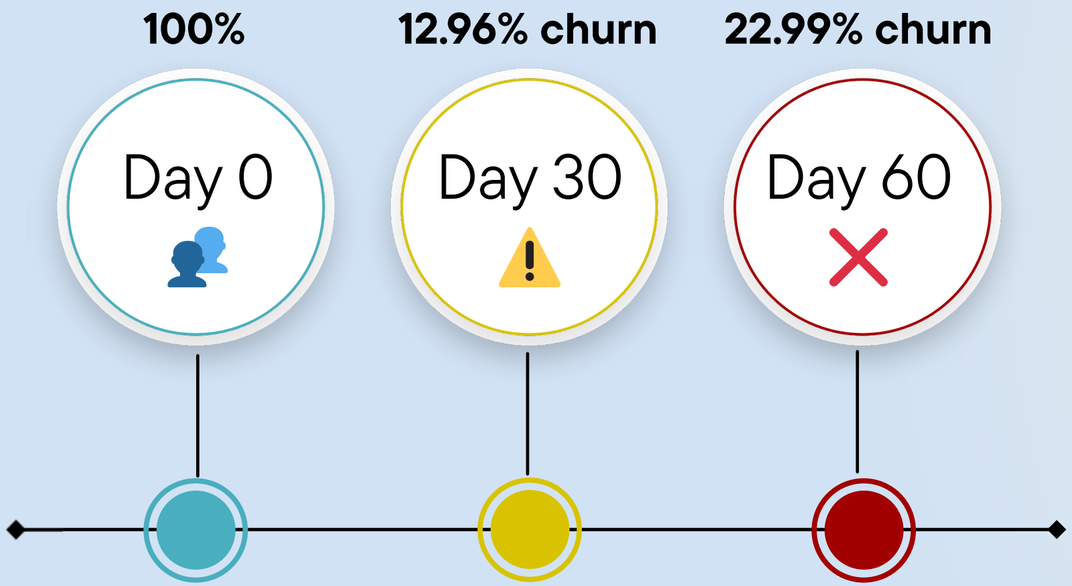
PROBLEM STATEMENT

Atlassian is losing nearly **1 in 8 customers** within **30 days** and almost **1 in 4** within **90 days,** making **churn a costly threat** to growth. Churned customers **engage less often, explore fewer features, and face product friction.**

The challenge is not just predicting who will leave, but identifying why and showing what actions will reduce churn. By simulating business levers (e.g., faster product performance, tailored discounts, encouraging deeper feature adoption), **Atlassian can turn churn prediction into churn prevention, protecting revenue and improving customer satisfaction.**



Churn Rates

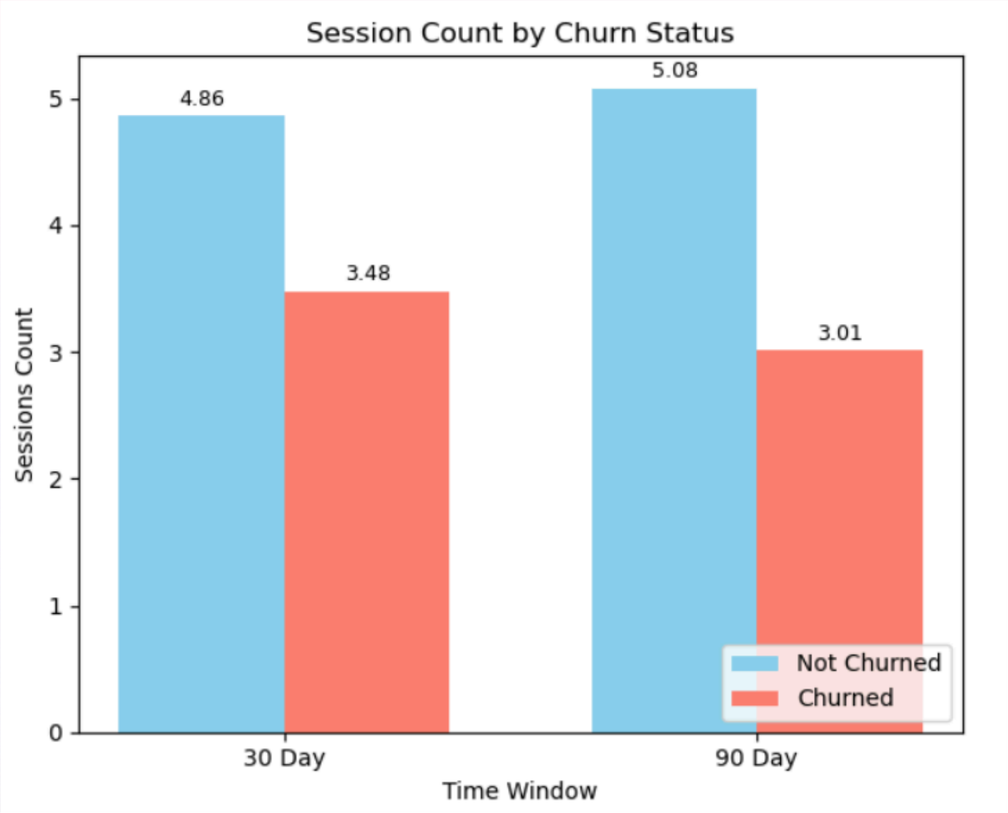
- Nearly **1 in 8 customers churn** within **30 days.**
- Nearly **1 in 4 customers churn** within **90 days.**

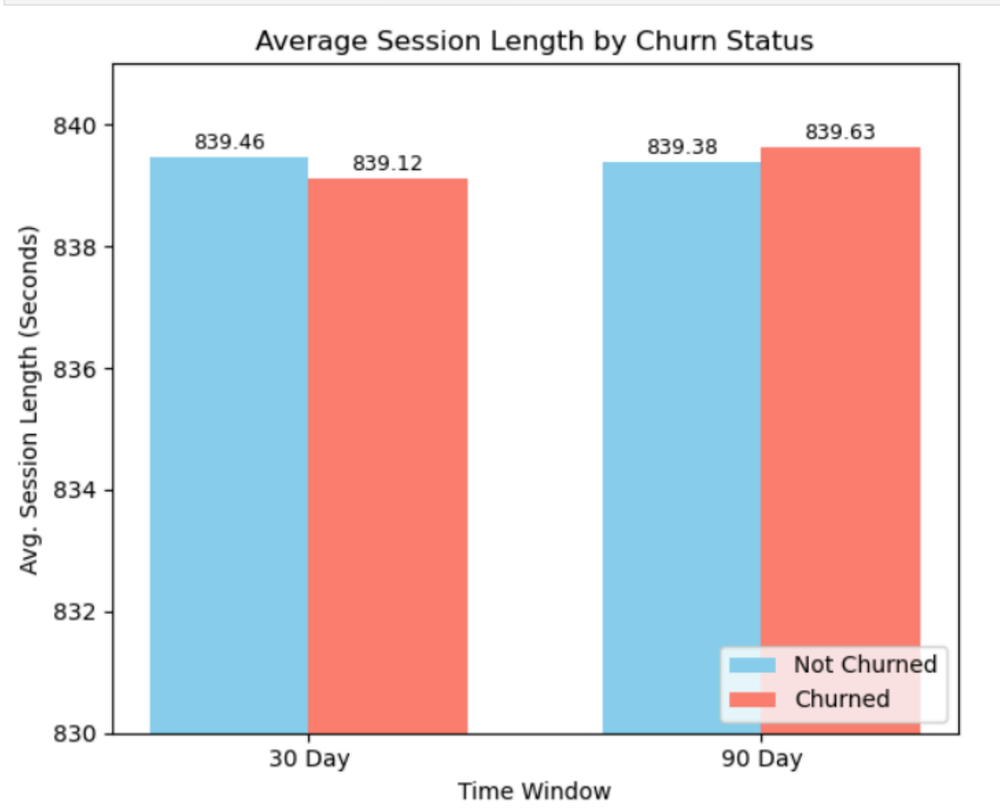
Why It Matters for Atlassian

- **Lost recurring revenue:** Every churned customer reduces predictable subscription income.
- **Stalled seat & product growth:** Disengaged teams are less likely to expand seats or adopt Jira, Confluence, Trello, or Bitbucket together.
- **Missed upsell & cross-sell opportunities:** Churners don’t upgrade or explore adjacent products.

ANALYSIS AND DATA- DRIVEN INSIGHTS

ANALYSIS: ENGAGEMENT BY CHURN RATE

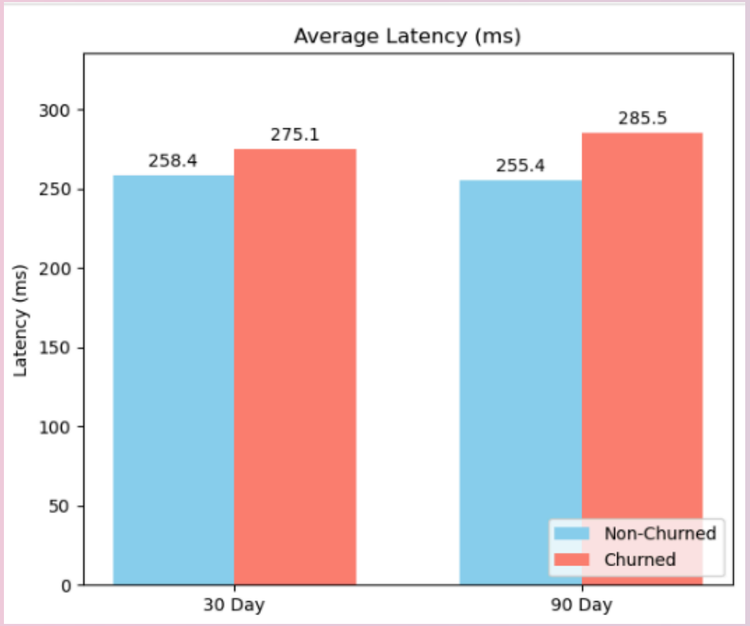


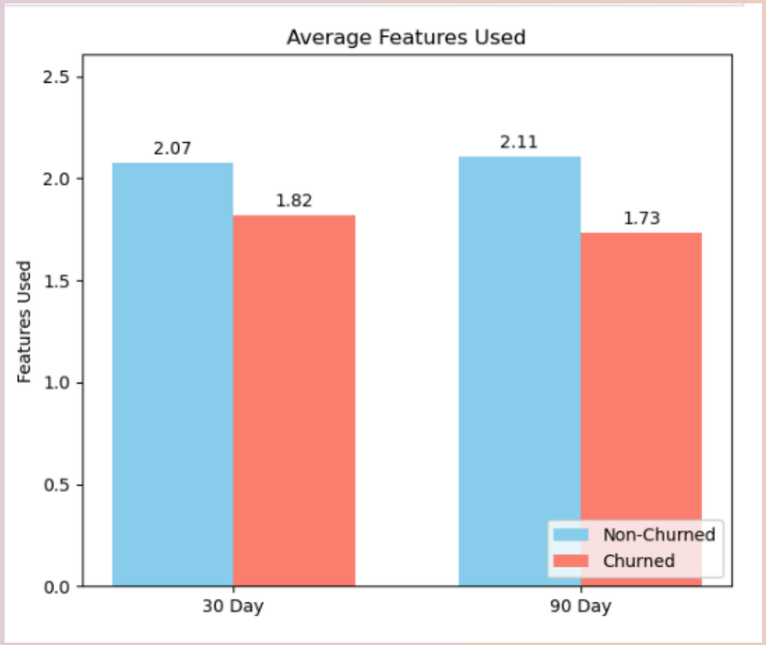


Churned users (both 30-day and 90-day) consistently **show lower session counts compared to non-churned users.**

However, **average session length remains nearly identical,** suggesting that while churned users engage less often, the depth of engagement per session is unchanged.

WHAT CAN POSSIBLY CAUSE THIS?



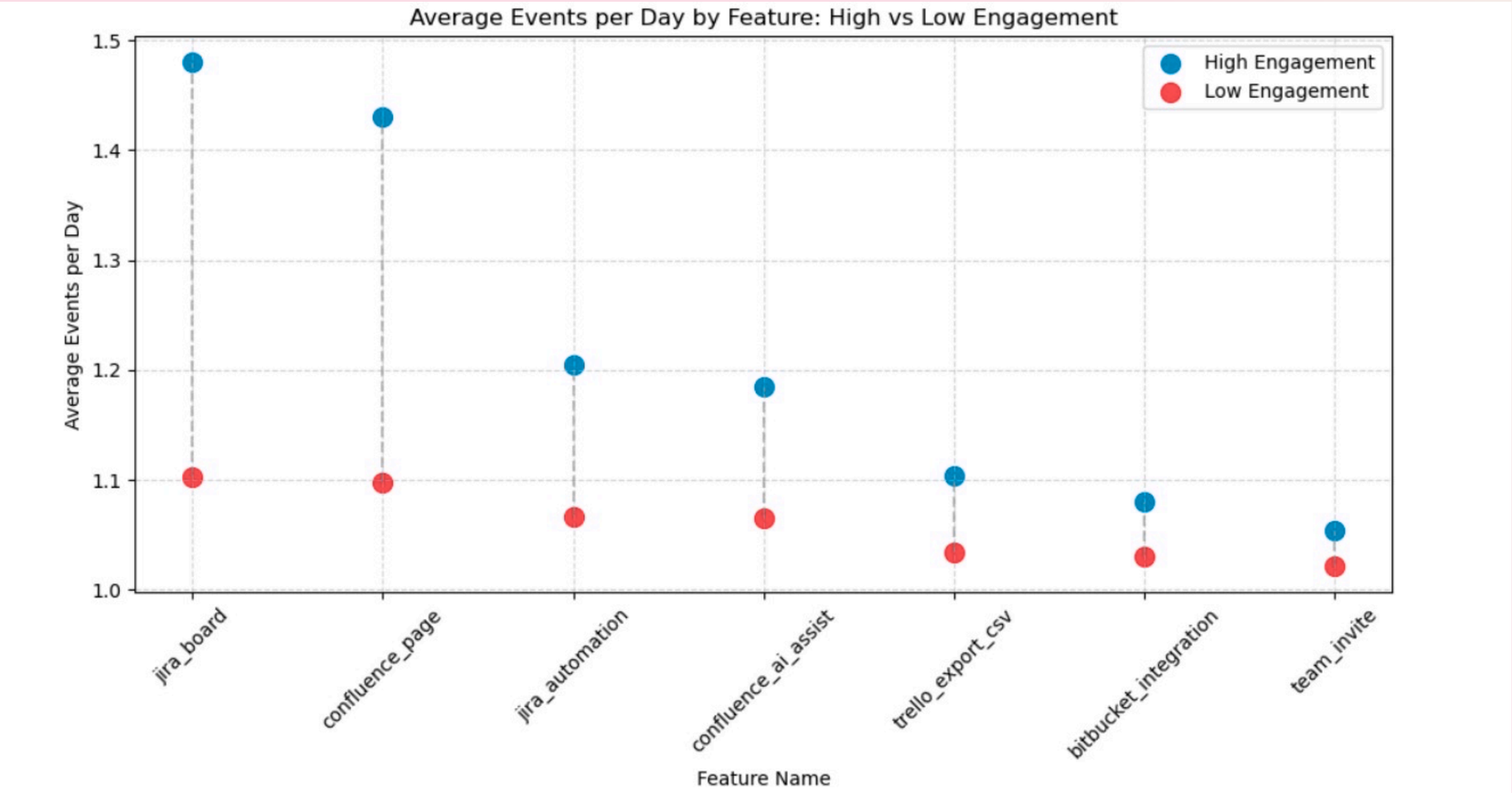


Average Latency:

- Churners consistently experience **higher** latency, especially by 90 days.
- Suggests slower response times **may** impact engagement.

Features Used:

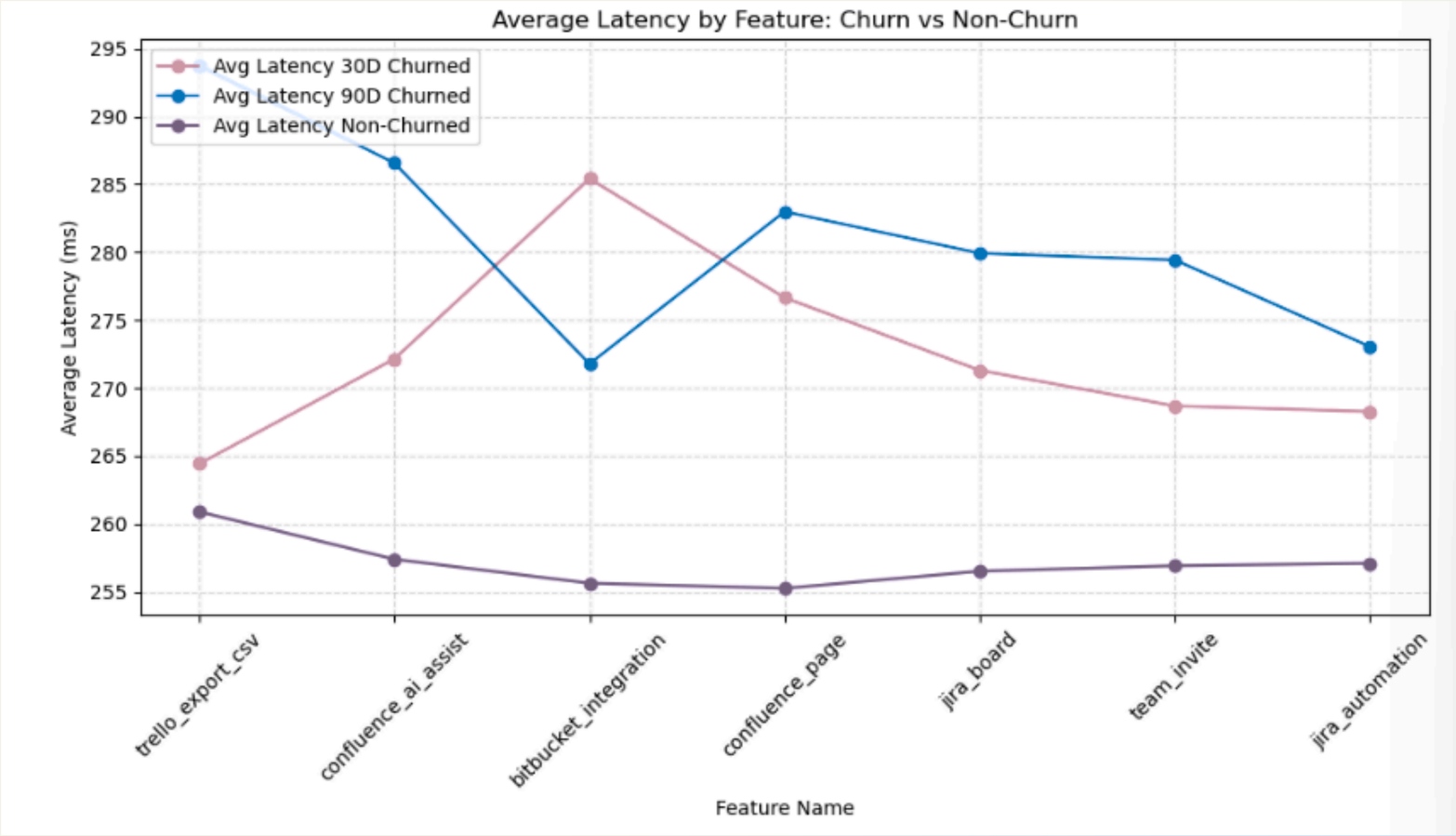
- Churners use **fewer** features across 30D and 90D.
- **Retained users:**
- used ~2.1 features on average
- **Churned users:**
- used ~1.7–1.8 features



High engagement users (blue) **use all features more frequently than low engagement users** (red).

LATENCY DIFFERENCE

- **Churned** users consistently experience **higher latency** across features compared to retained users.
- The gap is most pronounced in:
  - **Trello Export CSV** → 293.7 ms (churned) vs 260.9 ms (retained)
  - **Bitbucket Integration** → 285.4 ms vs 255.6 ms
- **Non-churners enjoy faster response** times overall (~255–260 ms range).



BILLING & SUPPORT

- **Overdue invoices**: Slightly higher among churners (2.66% vs 2.43%).
- Discounts: Retained users get more discounts (7.1% vs 4.7%).
- **Support tickets:** Retained users raise more (0.50 vs 0.30).

KEY INSIGHTS:

- Pay a bit later
- Receive fewer discounts
- Engage less with support before leaving

INSIGHTS SUMMARY

“Churn is driven by low frequency, shallow adoption, and weak billing/support signals - not by session depth or failure rate.”

Churn Baseline

~13% churn within 30 days, ~23% by 90 days.

Engagement Gap

Churners have fewer sessions, but session length is unchanged → frequency, not depth, predicts churn.

Feature Diversity

Churners consistently use fewer features; adoption gap grows by 90 days.

Performance Experience

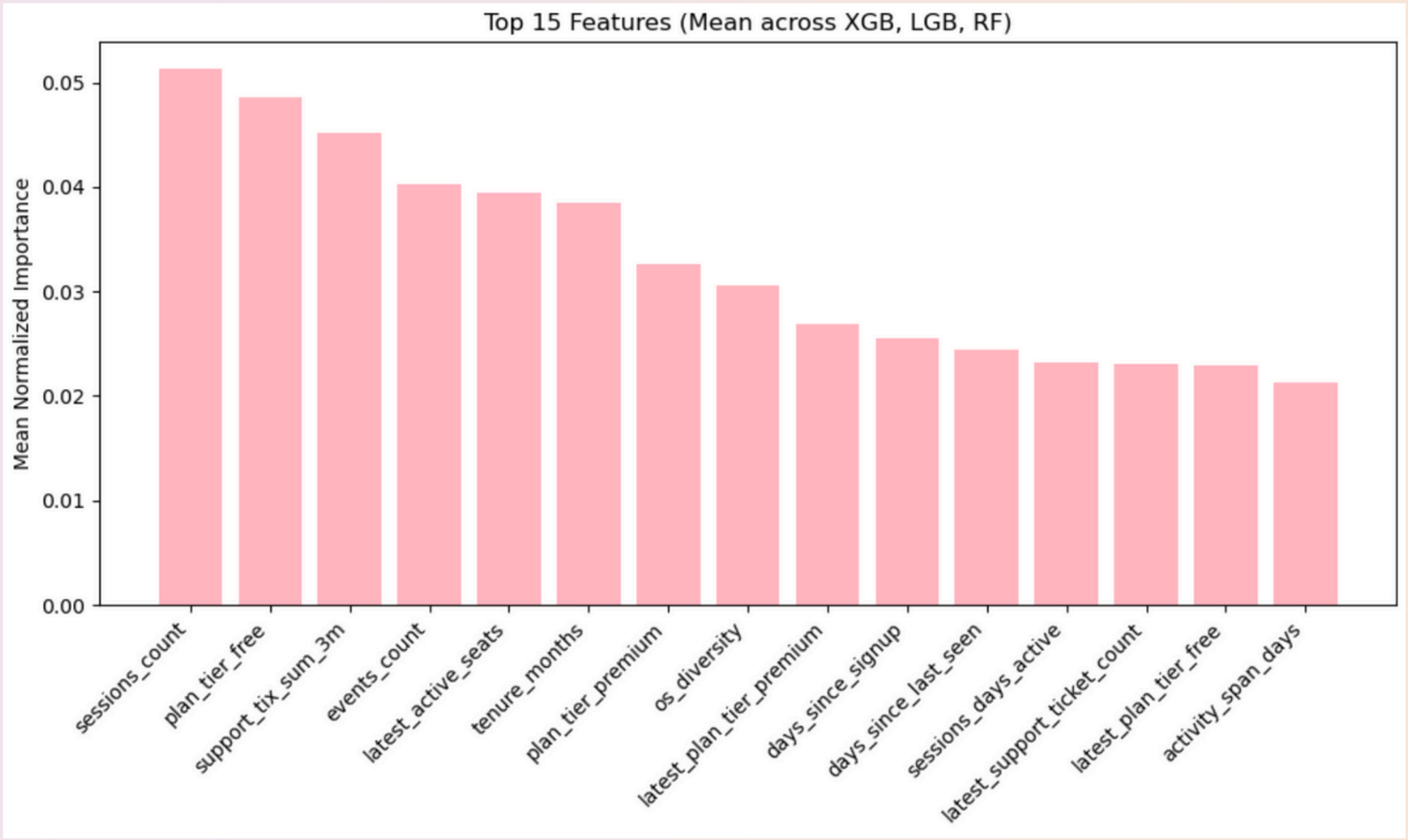
Churners face higher latency (slower features) compared to retained users.

Billing & Support Signals

Churners: slightly more overdue invoices, receive fewer discounts, and log fewer support tickets → signs of disengagement before leaving.

MODEL-VALIDATED PREDICTORS OF CHURN

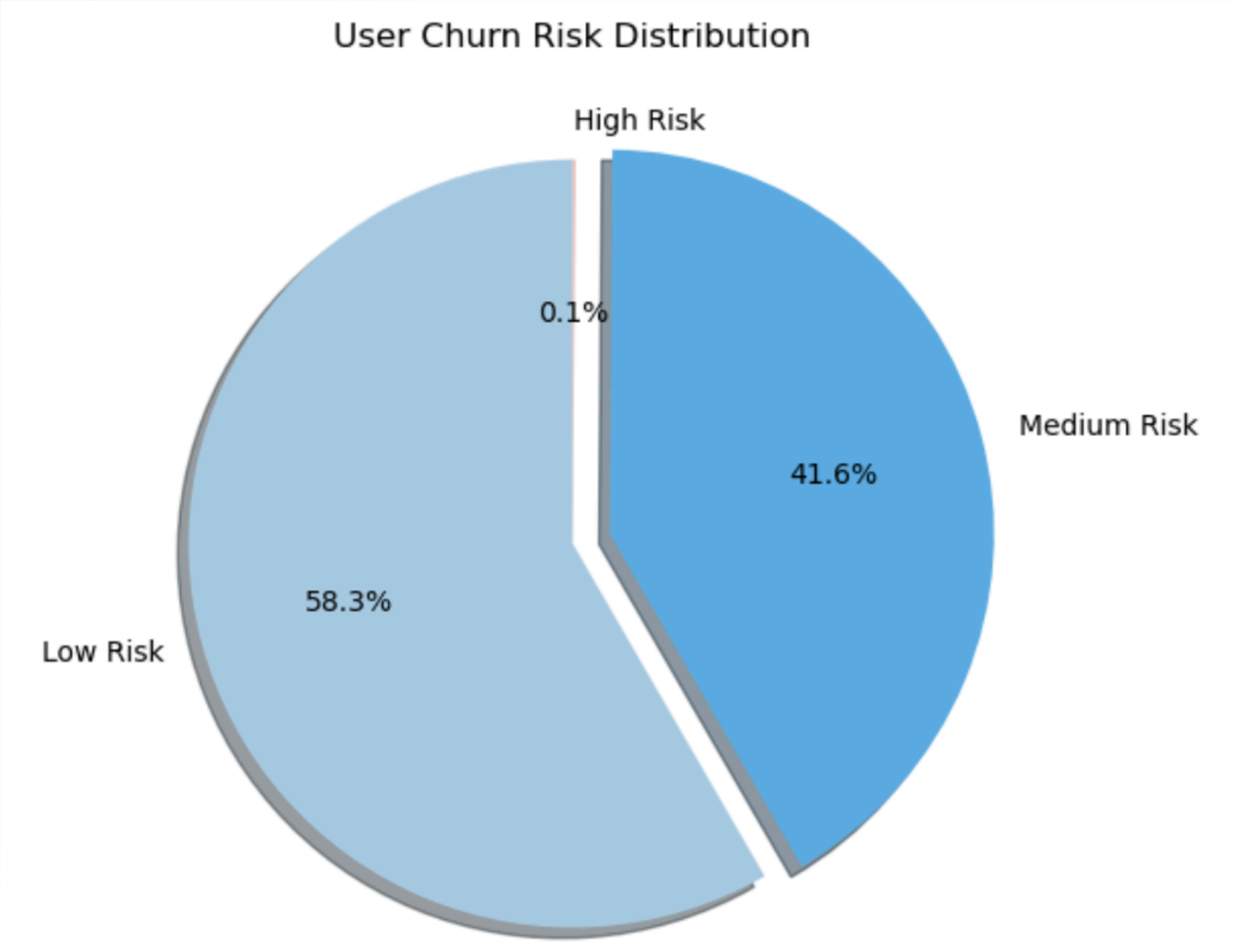
Session frequency is the #1 churn predictor - customers who log in less often are at the highest risk of leaving.



- This graph shows the **average feature** importance across our **models** (XGBoost, LightGBM, Random Forest).
- The standout predictor is **sessions_count** — how often users engage with the product is the single most important factor in predicting churn.
- All other factors (plan tier, support tickets, events, team size) rank lower, reinforcing that frequency of sessions dominates churn risk.

RISK DISTRIBUTION

The medium-risk group is the biggest lever: nearly 42% of users show churn signals but are still recoverable.



- The majority of users fall into low churn risk (58.3%, ~58k users).
- A *very small* fraction is high risk (0.1%, ~100 users).
- **The key group is the medium-risk segment (41.6%, ~41k users):**
  - Not yet at high risk, but show early warning signals.
  - With the right interventions (nudges, onboarding, support), many of them can be shifted back to low risk.

REDUCING CHURN RISK USING SHAP INSIGHTS

- **We trained a stacked ensemble churn model.**
  - Users are segmented into Low, Medium, High risk bands.
  - Medium-risk users: ~58% average churn probability.
  - This group is large enough to drive significant business impact.
- **Why SHAP?**
  - After training, we used SHAP values to explain predictions.
  - SHAP shows not just who is risky, but why.
- **SHAP Insights (Medium Risk)**
  - 🔴 High latency → poor product performance increases churn.
  - 🟠 Low sessions → lack of consistent engagement.
  - 🟡 Few features used → weak adoption of core value

WE FIGURED OUT A WAY TO REDUCE CHURN PROBABILITY TO 29%

SOLUTION 1

Increase Session Frequency (sessions_count)

Goal: Get at-risk users to log +2 more sessions per month.

Tactics:

- Add an in-product *“First 10 Days”* checklist with tasks (create a Jira issue, link a Confluence page, assign a teammate).
- Trigger email reminders if no login for 7 days: *“Finish your setup in 2 clicks.”*
- Reward completion with a 7-day trial extension.

SOLUTION 2

Expand Feature Adoption (features_used)

Goal: Encourage users to adopt +1 more sticky feature.

Tactics:

- Highlight Jira Automation and Confluence Page linking in onboarding tours.
- Unlock template packs only after users try a second feature.
- Surface a *“Suggested Next Step”* banner: *“Teams that use automation save 4 hrs/week. Try it now.”*

SOLUTION 3

Fix Performance Bottlenecks (avg_latency)

Goal: Reduce feature latency by 20% for high-usage functions.

Tactics:

- Prioritize Trello Export CSV and Bitbucket Integration, where churners experience the worst slowness.
- Add real-time in-app banners acknowledging latency issues and providing ETAs: *“We know exports are slower today — fix is in progress.”*
- Route high-risk users with latency_complaints to priority support queue.

Difference	Churn probability (%)
Before interventions	57.6%
After interventions	29.0%

Delta (improvement): 28.6% (~50% reduction in predicted churn risk)

RETENTION PLAYBOOK: PREVENTING CHURN LONG-TERM

"ACT EARLY. DRIVE ADOPTION. REDUCE FRICTION – AND TURN SILENT CHURN INTO GROWTH."

Boost Early Engagement

Trigger nudges if <3 sessions in first 30 days.

Encourage users to explore ≥2 features (e.g., Jira automation + Confluence page).

Feature Adoption Incentives

Unlock small rewards (trial extension, template packs) when users adopt key sticky features (team invite, automation, integration).

Billing Safety Net

If overdue invoice + low activity → auto-apply a small discount or extend grace period.

Pair with proactive outreach from success team.

Performance Transparency

If latency spikes on core features → show in-app message ("We noticed this is slow — fix is coming").

Builds trust and reduces frustration leading to churn.

BOOST EARLY ENGAGEMENT

Problem: Churners log fewer sessions in the first 30 days.

Goal: Increase session frequency (+2 sessions per user in first month).

Tactics:

Trigger nudge pop-ups if a user has <3 sessions in 30 days.

Send weekly email reminders with simple *"quick win"* tasks (e.g., "Assign your first Jira issue in 1 click").

Gamify onboarding → progress bar showing % of setup completed.

Offer a 7-day trial extension if the user completes the checklist in time.

Expected Impact: Higher DAU/WAU ratios, early habit formation → less churn by Day 30.

FEATURE ADOPTION INCENTIVES

Problem: Churners explore fewer features (1.7 vs 2.1).

Goal: Get users to adopt at least 1 additional sticky feature.

Tactics:

Highlight Jira Automation and Confluence linking in a *“Suggested Next Step”* tips.

Unlock template packs once a user adopts 2+ features.

Personalize onboarding tours → *“Teams like yours save 5 hrs/wk with Automation.”*

Use a reward system (trial extension, bonus credits) when sticky features are activated.

Expected Impact: Greater breadth of adoption = stronger lock-in and reduced churn at 90 days.

BILLING SAFETY NET

Problem: Churners have slightly higher overdue invoices, fewer discounts, fewer tickets.

Goal: Reduce friction around billing and prevent drop-off due to failed payments.

Tactics:

Auto-apply a 7-day grace period if overdue + low activity.

Offer a small discount (5–10%) to encourage payment recovery.

Trigger billing reminder emails with actionable steps (“Retry payment in 1 click”).

Flag accounts for success team outreach if both overdue + engagement drop are detected.

Expected Impact: Protects MRR, reduces involuntary churn from payment failure.

PERFORMANCE TRANSPARENCY

Problem: High latency strongly correlates with churn (e.g., Trello Export CSV = 293 ms vs 260 ms).

Goal: Reduce frustration and rebuild trust for users experiencing slowness.

Tactics:

show real-time in-app banner: *“We noticed this is slower today — fix is in progress.”*

Route affected users into a priority support channel.

Send follow-up email once performance improves.

Publish a status dashboard users can check anytime.

Expected Impact: Prevents disengagement from frustration, improves NPS, builds trust in Atlassian’s transparency.

BUSINESS IMPACT:

Baseline

- Current churn: 12.96% (30d), 22.99% (90d)
- Nearly 1 in 4 customers gone by Day 90

If Our Recommendations Work

- Reduce 90D churn probability to 29%

Why It Matters

- Retention fuels expansion: More customers → more active seats → more upsell opportunities
- Revenue protection: Prevents silent disengagement before billing loss
- Growth unlock: Even small churn reductions compound over thousands of teams

THANK YOU FOR LISTENING!

Q&A