

Have Backbone; Disagree and Commit

Question: Tell me about a time when you disagreed with a decision but committed to it anyway.

Situation: At Intuit, I led the ML team responsible for churn prediction models for TurboTax. We had developed a sophisticated price-sensitivity model using XGBoost to identify users at risk of abandoning the product before completing their tax returns. Our model incorporated over 150+ behavioral and contextual features, achieving 82% precision in identifying price-sensitive users who would respond to targeted offers. This model was a key component of our retention strategy with potential \$10M+ annual revenue impact.

Task: We initially implemented a personalized discount strategy offering 15-25% off based on user price sensitivity scores, showing strong conversion metrics. However, during a quarterly business review, finance leadership proposed shifting to a standardized \$10 flat discount for all at-risk users, citing concerns about revenue predictability and operational simplicity for the upcoming tax season. As the technical lead, I needed to evaluate this proposal against our data-driven approach.

Action: Based on my data analysis and understanding of user behavior, I strongly disagreed with this change. I presented a data-driven case against the flat \$10 discount:

- Showed historical data demonstrating that users who abandoned due to price typically had a minimum discount threshold of 15-20% to change their decision
- Provided segment analysis revealing that a \$10 discount represented less than 5% of the cost for our higher-tier products, making it psychologically insignificant for those users
- Proposed a tiered approach that would maintain budget goals while providing more meaningful discounts to high-value customers

I presented this evidence to cross-functional leadership (Product, Finance, Engineering, Marketing) through a detailed technical document and executive summary. While the leadership team appreciated my analysis, they ultimately decided on the \$10 flat discount due to broader company initiatives around pricing consistency and simplified reporting structures.

Once the decision was finalized, I fully committed to maximizing its success:

- Re-trained the model to optimize for the new constraint i.e. for users likely to respond to smaller fixed discounts (by adding more data in training set for this cohort).
- Collaborated with the UX team to A/B test various framing approaches for the \$10 offer, finding that emphasizing absolute savings versus percentage yielded 18% higher engagement
- Built an automated real-time monitoring system that allowed us to track performance across 9 different user segments (enabling rapid intervention if certain cohorts underperformed)

- Mentored two junior scientists to take ownership of different aspects of the implementation, building organizational capability while ensuring high-quality execution

Result: While the \$10 discount did result in lower conversion rates than the previous 25% offer (as I had predicted), my commitment to its successful implementation helped minimize the negative impact. The enhanced targeting approach I developed improved response rates by 15% compared to initial projections for the \$10 offer. More importantly, the detailed performance tracking I established provided valuable data that later informed a revised discount strategy for the following tax season, where leadership approved a more nuanced approach incorporating elements of my original proposal.

This experience reinforced that disagreeing effectively isn't just about having data—it's about translating technical insights into business impact language while respecting organizational constraints. When the decision went against my recommendation, I channeled my energy into making it as successful as possible while building the foundation for future improvements.

Bias for Action

Question: Describe a time when you needed to act quickly to address an urgent situation.

Situation: At Intuit, three weeks before the tax season launch—our company's most critical revenue period—we discovered a severe degradation in our production ML systems. Our suite of churn prediction models (abandonment, FUD, and price sensitivity) was showing alarming performance regressions in pre-deployment validation. Model precision had dropped by 22% and recall by 18% compared to the previous year, threatening a potential \$10-12M revenue impact. Upon investigation, we identified that significant shifts in data distribution had rendered many of our historical behavioral patterns obsolete.

Task: As the lead AI Scientist supporting TurboTax's flagship initiatives in churn prediction, I needed to rapidly diagnose, redesign, and deploy new models before the tax season peak. The stakes were extraordinary—not only would underperforming models directly impact quarterly earnings, but the entire customer retention strategy depended on accurate predictions. I faced complex constraints: no access to additional data sources, no time for extensive experimentation, compliance requirements mandated model interpretability, and our cross-functional stakeholders (Product, Marketing, Finance) required clear confidence measures for business planning.

Action: Rather than getting caught in analysis paralysis or requesting timeline extensions, I immediately mobilized with a structured rapid-response approach:

1. Within 4 hours of discovering the issue, I assembled a tiger team of 3 ML scientists and 2 engineers, established 24-hour development cycles with 2 daily standups, and created a war room dashboard for real-time progress tracking
2. Rather than incremental fixes, I made the calculated decision to pivot our entire feature engineering approach, focusing on the untapped potential of clickstream data.
3. Transformed the last 50 screens visited by users and their timestamps into rich time-series and graph-based features:
 - Created behavioral metrics like screen revisit frequency (how often users returned to the same screen)
 - Calculated session velocity measures (time difference between 1st and 50th screen)
 - Engineered graph-based features (number of incoming/outgoing edges between screens)
 - Extracted statistical properties of time between screens (variance, skewness, kurtosis)
 - Built session complexity metrics (unique screens vs. total screens viewed)
4. Wrote critical infrastructure code myself alongside the team, implementing parallel computation pipelines that reduced feature extraction time from 6 hours to 37 minutes

5. Balanced technical complexity with business needs by developing an interpretability layer that translated complex model behaviors into actionable business insights:
Created an automated feature importance framework that generated plain-English explanations of model decisions
6. Made decisive tradeoffs between model completeness and timeline adherence:
 - Prioritized high-business-impact segments over edge cases
 - Designed a fallback architecture that could revert to simpler models if issues arose

Result: Through decisive leadership and technical innovation, we delivered transformed models 48 hours before the critical deployment window:

1. The new models achieved a 35% improvement in performance compared to the degraded models, exceeding even our previous year's performance by 12%
2. During tax season, these models directly contributed to a 0.5% reduction in overall churn rate, translating to \$21M in incremental revenue—more than double our original targets
3. The rapid development of our novel time-series and graph-based feature extraction techniques led to two patent applications and became the foundation for Intuit's next-generation ML platform
4. My technical approach was adopted as the standard methodology across growth and retention models, with the automated interpretability layer becoming a compliance requirement for all customer-facing ML systems

This experience reinforced my leadership philosophy that decisive action backed by technical excellence and clear communication is essential in high-stakes situations. When faced with ambiguity, I've learned that creating structure, making data-informed bets, and empowering cross-functional teams can transform potential failures into breakthrough opportunities.

Think Big

Question: Tell me about a time when you thought big or innovated in your role.

Situation: In my early days at Intuit, the company was experiencing a fundamental tension in its AI strategy. Despite investing heavily in machine learning capabilities, our approach was fragmented—we had built over 30+ separate ML models across the TurboTax ecosystem (recommendation systems, churn prediction, fraud detection, etc.), each operating in isolation with its own data pipeline, training methodology, and evaluation framework. This siloed approach was limiting our ability to deliver transformative customer experiences, creating technical debt, and making it increasingly difficult to maintain and improve our ML infrastructure as we scaled. With the advent of GenAI, we started facing growing competitive pressure from startups leveraging LLMs to reimagine tax preparation experiences.

Task: While my initial mandate was focused on developing point solutions for taxes, I saw an opportunity to fundamentally transform how customers interact with our tax products through a more comprehensive AI-driven approach that would integrate these disparate experiences. Rather than incrementally improving existing systems, I envisioned a unified AI architecture that would combine our predictive strengths with emerging generative capabilities to create a truly intelligent tax assistant—one that would transform tax preparation from form-filling to a conversational, personalized experience that could anticipate needs, provide contextual guidance, and dramatically reduce complexity for our 50M+ customers.

Action: I developed and championed a vision for an AI-first tax experience:

1. Created a comprehensive technical framework that articulated a three-horizon evolution of our AI capabilities:
 - Horizon 1: Integration layer connecting existing predictive ML systems via a unified API gateway and shared feature store
 - Horizon 2: Development of a hybrid architecture combining predictive and generative capabilities
 - Horizon 3: Evolution to a fully autonomous, multi-agent system capable of end-to-end tax preparation
2. Built technical credibility through rapid prototyping:
 - Designed and implemented a proof-of-concept that demonstrated the power of connecting our predictive ML systems with an LLM-powered conversational interface
3. Established a scientific methodology for systematic innovation:
 - ▢ Developed a comprehensive research agenda addressing key technical challenges like combining sparse and dense representations, ensuring factual consistency etc

☑ Created a rigorous evaluation framework that quantified both technical metrics and business outcomes

4. Built organizational momentum through strategic coalition-building:

☑ Presented my vision to Intuit's CTO and AI leadership council, securing executive sponsorship

☑ Formed a cross-functional working group with engineering, product, legal, and security stakeholders

☑ Developed a comprehensive risk assessment framework that addressed concerns around hallucinations, regulatory compliance, and data privacy

☑ Negotiated strategic partnerships with leading AI providers (Anthropic, AWS) to secure priority access to frontier models and influence their development roadmaps.

Result: This strategic initiative fundamentally transformed both Intuit's technical architecture and its product strategy:

1. Technical achievements:

- Successfully deployed the industry's first hybrid tax assistant combining domain-specific predictive models with generative capabilities
- Created a unified AI architecture that combines predictive AI with Generative AI while improving overall performance

2. Business impact:

- Tax Assistant/Copilot became Intuit's flagship AI initiative, highlighted in quarterly earnings calls and contributing \$10M in direct revenue in its first year
- Improved conversion rates by 0.25% and reduced customer support costs by \$2M annually
- Transformed customer experience metrics, with NPS scores increasing by 6 points for users engaging with the assistant

3. Strategic transformation:

- My technical vision has become the foundation of Intuit's broader GenAI strategy, influencing product roadmaps across QuickBooks, Credit Karma, and Mailchimp
- Created a virtuous cycle where conversational interactions continuously improve our predictive models, creating a sustainable competitive advantage

4. Personal growth:

- Evolved from a technical contributor to a strategic thought leader influencing company-wide AI direction
- Became a trusted advisor to executive leadership on navigating the AI landscape

This experience solidified my belief that the most impactful innovation comes not just from technical excellence, but from creating a compelling vision that aligns technology with business strategy and organizational capabilities.

