

Integrating Artificial Intelligence with Product Innovation: Enhancing User Engagement and Transactions at PicPay

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ABSTRACT

AI models have become essential within financial companies, especially fintech firms, by significantly enhancing user experience and driving a wide range of transactions, including purchases, payments, investments, loans, and savings activities [1]. At *PicPay*, a Brazilian fintech with over 35 million active users [2], the recommendation team has successfully integrated machine learning with product design and user communication to generate contextually relevant algorithms. This integration has enabled personalized recommendations throughout the user journey across various touchpoints in the *PicPay* app, resulting in more than 92% of users engaging with recommended content each month.

In this talk, we share our insights from leading the recommendation team at *PicPay*, highlighting the collaborative efforts with design, product, and business teams. By integrating machine learning algorithms and A/B testing at scale, and through effective negotiation and cross-team collaboration, we have achieved significant improvements in the recommendation system and overall user engagement. Over several months, these strategies have led to very positive results, demonstrating the power of aligning technical innovation with strategic business objectives.

1 POTENTIAL DISCUSSION POINTS

- Cross-Team Collaboration for AI Integration: Strategies and best practices for effective negotiation and collaboration between design, product, and business teams to successfully integrate AI models and achieve business objectives.
- Scaling Machine Learning and A/B Testing: Techniques for deploying machine learning algorithms and conducting A/B testing at scale to enhance personalized recommendations and user engagement in a large fintech application.
- Enhancing User Experience with Contextually Relevant Algorithms: Approaches for developing and implementing machine learning algorithms that generate personalized and contextually relevant recommendations across various touchpoints within a fintech app, resulting in high user engagement.

2 RELEVANCE TO THE WORKSHOP

This case study is highly relevant for it showcases the practical application of AI models within the financial sector, particularly in fintech firms, demonstrating how these technologies can significantly enhance user experience and drive a wide range of transactions. The example of *PicPay* illustrates how machine learning can be

effectively integrated with product design and user communication to create contextually relevant algorithms.

Additionally, it highlights the importance of cross-disciplinary collaboration. By working closely with design, product, and business teams, the recommendation team at *PicPay* successfully negotiated and implemented machine learning algorithms and A/B testing at scale. This collaborative effort underscores the need for effective teamwork and communication in deploying AI solutions.

Furthermore, this work provides concrete evidence of the positive impact of aligning technical innovation with strategic business objectives. The significant improvements in the recommendation system and overall user engagement achieved at *PicPay* demonstrate the tangible benefits of such alignment, making this case study a valuable learning opportunity for the machine learning community.

3 ABOUT THE PRESENTER

Yan Werneck is a seasoned data scientist and the Head of Recommendation and Search Systems at *PicPay*, one of Brazil's leading fintech companies. He holds a Bachelor's degree in Statistics from the Federal University of Rio de Janeiro, which laid the foundation for his expertise in data analysis and machine learning.

In addition to his professional role at *PicPay*, Yan is also a passionate educator. He teaches Statistics and Machine Learning for data science disciplines in an online postgraduate course at *Descomplica*. His teaching aims to bridge the gap between theoretical knowledge and practical application, equipping students with the skills needed to excel in the data science field.

The company. Founded in 2012, *PicPay* is a Brazilian fintech that was born to make life easier by reinventing the way people deal with money, shop and communicate. In 2015, the company was invested by the J&F group, one of the largest business conglomerates in Brazil. *PicPay* is a two-sided ecosystem that offers products and services to consumers and sellers to address all their needs, from day-to-day payments, financial services to investments and shopping, in a simple, easy and secure way.

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