

Lab 1 - BetterSwipe Product Description

Kyrie Champagne

Department of Computer Science, Old Dominion University

CS 410 - Professional Workforce Development I

Professor James Brunelle

December 01, 2023

Table of Contents

1. Introduction.....	3
2. Product Description.....	3
2.1 Key Product Features and Capabilities.....	4
2.2 Major Components (Hardware/Software).....	4
3. Identification of Case Study.....	5
4. Product Prototype Description.....	6
4.1 Prototype Architecture (Hardware/Software).....	6
4.2 Prototype Features and Capabilities.....	7
4.3 Prototype Development Challenges.....	9
5. Glossary.....	10
6. References.....	11

1. Introduction

Navigating the complex world of rewards credit cards can be a daunting task for consumers. The multitude of available options often leads to confusion and suboptimal choices. BetterSwipe emerges as an innovative platform, aiming to simplify the process of selecting a rewards credit card by tailoring choices to individual spending habits. The product description will delve into the background of this problem, describe the solution offered by BetterSwipe, and consider its implications for both consumers and the broader financial industry.

The rewards credit card market is brimming with choices. As of 2023, Credit Karma lists an extensive range of cards, including 53 cash back, 12 miles, and 20 points options. Such variety in rewards systems leads to consumer bewilderment. A study by Experian in 2017 highlights the issue: 69% of people find researching new credit cards too time-consuming, 61% are overwhelmed by the number of choices, and 57% struggle to find cards that suit their needs. Additionally, Black's 2022 study reveals that 69% of reward cardholders are not maximizing their rewards, indicating a mismatch between consumer spending habits and the cards they select.

The core issue is the disconnection between the number of card options and the individual consumer's spending patterns. Consumers could significantly benefit from savings through rewards, yet the complexity of choosing the right card is a major barrier. The challenge is to provide recommendations that are not just numerous but also closely aligned with the consumer's actual expenditure.

BetterSwipe addresses this challenge by utilizing users' transaction histories to construct personalized expenditure profiles. These profiles, dynamically updated based on spending habits, enable BetterSwipe to recommend the most suitable rewards card for each user. Additionally, users can refine their profiles with information like their credit score and existing card holdings.

2. Product Description

BetterSwipe goes beyond just being a simple tool; it's an all-encompassing platform designed to simplify the process of selecting reward-based credit cards. Through its analysis of personal spending habits, BetterSwipe effectively streamlines what is often a challenging and time-consuming task of selecting the right credit card, making it more straightforward and efficient. This method is especially advantageous for individuals who feel overwhelmed or burdened by the complexity of the process.

2.1 Key Product Features and Capabilities

BetterSwipe operates by constructing a detailed spending profile for each user based on their past transaction history. This profile is the cornerstone of the platform's functionality, as it enables BetterSwipe to make tailored recommendations for rewards credit cards that align closely with the user's actual spending habits. This personalized approach is what sets BetterSwipe apart in the market. While many applications offer credit card recommendations, few go to the lengths of creating individualized spending profiles to ensure that these recommendations are as relevant and beneficial to the user as possible.

The significance of BetterSwipe lies in its ability to greatly simplify the process of selecting rewards credit cards. Traditionally, choosing the right credit card could be a time-consuming and

complex task, requiring extensive research and comparison. BetterSwipe transforms this process into one that's as easy as a few clicks. By employing a sophisticated algorithm that works in tandem with the spending profile, the platform can automate the process of matching users with the most suitable credit cards. This not only saves users time and effort but also enhances the likelihood of them selecting a card that maximizes their rewards and fits their financial lifestyle. In essence, BetterSwipe offers a streamlined, intelligent solution to a problem faced by many consumers in the ever-expanding credit card market.

2.2 Major Components (Hardware/Software)

The platform includes both hardware and software components. It is accessible via network-compatible devices such as personal computers and smartphones. The software side utilizes technologies like HTML, CSS, JavaScript, Python, and MySQL, with development tools including Visual Studio Code, Github/Git, Gradle, Trello, Discord, and Zoom being integral to its development and continuous enhancement.

3. Identification of Case Study

The BetterSwipe platform is being developed with a specific demographic in mind: consumers who are in the market for a new rewards credit card. This target group is currently facing an overwhelming variety of choices, as evidenced by the 98 different card options listed on NerdWallet as of November 2023. Additionally, the platform aims to serve consumers who are not maximizing the potential of their rewards, a common issue highlighted by Black in 2022, indicating that many rewards credit card holders are underutilizing the benefits available to them. Another key segment includes individuals focused on building their credit responsibly.

To effectively tailor and refine BetterSwipe, a case study group has been identified. This group comprises students from Old Dominion University (ODU), who are interested in finding a credit card to build their credit. Their feedback on the app prototype will be invaluable in understanding user needs and refining the platform's features. This hands-on approach will ensure that BetterSwipe is attuned to the real-world requirements of its primary users.

Looking ahead, the potential applications of BetterSwipe extend beyond individual consumers.

Banks and credit card companies could utilize the platform for detailed analytics, gaining insights into consumer spending patterns and preferences. This data could prove crucial for these institutions in developing strategies and customizing offerings. Additionally, businesses stand to benefit from BetterSwipe's data. With a clearer understanding of consumer spending, businesses could more effectively decide which credit card companies to partner with for co-branded cards.

Such collaborations could be strategically aligned with consumer trends and preferences, creating a win-win situation for businesses, card companies, and consumers alike.

5. Glossary

Application Programming Interface (API): software intermediary that allows two applications to talk to each other. APIs are an accessible way to extract and share data within and across organizations.

Artificial intelligence (AI): development of computer systems capable of performing tasks that historically required human intelligence, such as recognizing speech, making decisions, and identifying patterns.

Annual Percentage Rate (APR): is the cost you pay each year to borrow money, including fees, expressed as a percentage. The APR is a broader measure of the cost to you of borrowing money since it reflects not only the interest rate but also the fees that you have to pay to get the loan.

Amazon Web Services (AWS): is a subsidiary of Amazon that provides on-demand cloud computing platforms and APIs to individuals, companies, and governments, on a metered, pay-as-you-go basis. Clients will often use this in combination with autoscaling.

Graphical User Interface (GUI): a form of user interface that allows users to interact with electronic devices through graphical icons and audio indicators.

Machine Learning (ML): a branch of AI and Computer Science which focuses on the use of data and algorithms to imitate the way humans learn, gradually improving its accuracy.

Rewards Credit Card: credit cards which offer you some type of “reward”—typically cash back, points, or travel miles—for every dollar you spend, sometimes up to certain limits.

6. References

Black, M. L. (2022, August 15). *Survey: Credit cardholders sitting on unused rewards*. LendingTree. <https://www.lendingtree.com/credit-cards/study/unused-rewards/>

Credit Karma. (2023). *Compare credit cards & apply online instantly*. Intuit Credit Karma. <https://www.creditkarma.com/credit-cards/search-cc>

Experian. (2017). *Survey Findings: How Do Consumers Feel About Credit Cards?* <https://www.experian.com/blogs/ask-experian/survey-findings-how-do-consumers-feel-about-credit-cards/>

NerdWallet. (2023). *Compare Rewards Credit Cards for Good Credit. Rewards Credit Cards - Compare 98 Card Offers*. <https://www.nerdwallet.com/rewards-credit-cards?amex=1>