Final Assignment Part 1

Recommendation Engine

Submitted by
Swathi Ganesan
12372237
swathiganesan@uchicago.edu

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3. Document the problem you will address using the SMART framework – use hypothetical data and goals for the improvement your Recommendation Engine will deliver

INITIAL GOAL	Write the goal you have in mind
	An ecommerce website currently recommends "most popular" items to all users with the hope that users will add items to their shopping cart and increase the size of each purchase. This approach is successful by increasing sales for the website and the current CMO/Webmaster do not believe there is a more intelligent solution that is more relevant to each user based on their prior purchases and relationship with the ecommerce website.

S SPECIFIC	What do you want to accomplish? Who needs to be included? When do you want to do this? Why is this a goal?
	The Data Science team will help the CMO of the ecommerce site increase customer lifetime value and sales revenue by better targeting their customers through personalized recommendations based on patterns in frequency of visits and shopping history

M MEASURABLE	How can you measure progress and know if you've successfully met your goal?
	Implement a personalized recommender system to help customers find their book of interest thus increasing the revenue generated through recommended items by 45%

A ACHIEVABLE	Do you have the skills required to achieve the goal? If not, can you obtain them? What is the motivation for this goal? Is the amount of effort required on par with what the goal will achieve?
	The Data Science team would upscale itself to implement the best recommender system to create targeted marketing campaigns and dynamic recommendations personalized to customer preferences by providing custom offers and discounts

R RELEVANT	Why am I setting this goal now? Is it aligned with overall objectives?
	With more customers moving towards online shopping and e-books, a good recommender system will better assist the customer in finding the right books in minimal time thus improving their online shopping experience

T TIME-BOUND	What's the deadline and is it realistic?
	The Data Science team would like to convince the CMO that our approach would be more efficient in increasing AOV by increasing the basket size based on more relevant recommendations

SMART GOAL	Review what you have written, and craft a new goal statement based on what the answers to the questions above have revealed
	The Data Science team's approach to increasing average order value for the ecommerce website is to design and build a data-driven recommendation engine that will target their customers with more personalized book recommendations thus achieving a more satisfied customer base along with increased sales for the website

4. Select from a pool of titles and roles within the company to create a core team (Maximum 6-8 members) to perform the analysis and develop the pitch to your CMO.

(Pool: VP Finance, Data Engineer, SVP Data Scientist, Financial Analyst, Customer Satisfaction Manager, Website Analyst, Webmaster, VP Marketing, Performance Marketing SEM/SEO Analyst, Customer Retention Manager, Marketing Manager, Customer Research Analyst, Data Visualization Specialist, Sr. Data Scientist, Marketing Analytics Manager, IT Manager for Ecommerce Data Storage, Marketing Messaging/Creative Designer, Ecommerce Financial Manager)

My core team :

- SVP Data Scientist
- Data Engineer
- Sr. Data Scientist
- Customer Satisfaction Manager
- Marketing Manager
- Marketing Analytics Manager
- Data Visualization Specialist

5. Describe the team strengths and discipline focus areas that justify your need for each person and why this talent will be necessary for your success. This justification is intended to both motivate the team members and gain support from their managers to join your team.

SVP Data Scientist	Provide leadership and oversight for management of staff, budget, and department policies
Sr. Data Scientist	Ideate and propose the most relevant model for implementation of our recommender engine after analyzing the business problem
Data Engineer	Build, optimize and improve the performance of our recommender engine by implementing and fine-tuning the model on live data feeds
Customer Satisfaction Manager	Help us understand the metrics employed in estimating customer satisfaction and brainstorm potential methodologies to improve overall customer satisfaction that could influence our model
Marketing Manager	Explain the various marketing campaigns that are actively running currently and establish performance indicators to analyze the performance of the marketing strategy
Marketing Analytics Manager	Analyze and comprehend how the new recommendation engine is performing in comparison to the existing recommendation methods using the relevant KPIs
Data Visualization Specialist	Translate the economic outcomes and findings of the increase in revenue and click through rate post implementation of our improved Recommender Engine into compelling and meaningful visuals for our presentation with the CMO