Receive Receipt – Western Oregon University Computer Science

Project Description

A web application paired with a helper-app to track and utilize receipts of a user. Good for tax returns, self-aware shoppers and data collection. The web application would allow users to pave their own reasons for collecting receipts.

General uses upon completion

The Users would take out their recent receipts and snap a photo of them using the helper-app. This would then be accessible and modifiable via the web interface. The user can then track many things like

- Money spent this month
    - Money you might spend next month
- Most taxes payed for. . .
- Shopping Habits
- Coupons missed out on or yet to be used

What is new/original about this idea?

The idea radiates organization. Many people, still, have super powerful phones and computers but don't have a good remedy for the physical space a receipt actually takes up. That is where Receive Receipt comes in! Ready to store, track, and back-up receipts for the user, so they do not have to.

What are related websites/apps?

Expensify.Com: A widely known receipt tracking apps. Expensify can submit receipts to your manager, collect receipts from clients, and track your personal expenses.

After using your smartphone to take a picture of your receipt, the SmartScan feature automatically reads any important details. You can add a category to each receipt, then tag and group expenses for expense reporting.

In addition to tracking expenses, the app also includes mileage and time tracking. As a manager receiving expense reports from employees, you have the ability to approve or reject expense reports. Approved expense reports can be reimbursed via next-day direct deposit (qtd. in https://www.thebalancesmb.com/best-receipt-scanners-and-trackers-4172461).

Why is this idea worth doing?

Impact the impact will not be as large as was hoped from the start, since the idea exists already. The app will be free so this will allow the people searching for cheap/free apps to download the helper-app and use the web interface.

Need the need is not as prominent as first believed—because there exists a very good app for this very application. However, the price might be an issue for some so making a free version of this web interface would be a good idea (with ads).

Insight Data collected by the web interface will allow users to see their own activity in a new way. The possibilities are endless and this web interface is very modular.

Why is it useful and not boring?

The web interface is super useful because it allows those who want to keep track of their receipts to reduce the room their physical receipts take and organize it via a relational database verses other methods.

What are a few major features?

- Creative Graphs that help monitor and articulate the user's shopping activity by the help of receipts.
- Predictions for future spending depending on what the ML finds about the existing spending habits of the user.
- Helper-Application that easily transfers images (receipts) taken by the user and feeds them to the AI to analyze and fill in the blanks of a receipt form.

What resources will be required for you to complete this project that are not already included in the class? Additional API's, frameworks or platforms you'll need to use.

A text recognition API. One that can view the text in a photograph and discern what type of data it is. An application on an IOS/Android device that serves as a helper-feature/app that will be hooked up to our AI on the Web Server.

What algorithmic content is there in this project? i.e. what algorithm(s) will you have to develop or implement in order to do something central to your project idea?

Algorithmic content begins to appear when the AI/ML approach begs the prediction of future spending for a particular type of product (i.e. Gas, Food, Clothes).

Another algorithm that might be used is Digkstra's Algorithm for the bettering of a user's driving/walking patterns when shopping. For example: *Because the user works at location X and during lunch eats at location Y. We have discovered that there is a similar place at location T and it's a lot closer than Y with the same food/reviews.* This idea, however, might include a Google Maps API since we will need it to use location services and such.

Rate the topic with a difficulty rating of 1-10.

This project weighs in at about an 8 or 9 because of the AI and ML that will be included. It is also out of the comfort zone of each of our developers because none of us are too experienced in application development. This will mean we are learning on the job and risking many issues in the future.