Research Internship
ADOBE

Motivation:

Online user behavior is typically tracked using their clicks and analytics by enterprises. However, the current state of the user is not captured through such interactions.

Exploration:

We explored how **user's current web interactions** combined with the **content** consumed can be leveraged to first understand the user cognitively and then create **customized experiences** while the user is still *browsing in the current session*.

Approach*:

We introduced **2 deep learning models**, first one that predicts the user profile based on the interactions and the second that leverages this information to create a customized experience. The models take in real time data.

One of the major challenges was availability of **no dataset** for the problem statement.

Contribution:

- Implementation and instrumentation of mechanisms to capture **user information in real time from web interactions** using JS libraries, which was a non-trivial task given the variance in different website designs
- Hosted 2 types of **surveys** on Amazon Mechanical Turk (**AMT**) for data gathering using multiple websites
- Led the conceptualization and data gathering for 'customizing web experience' part, along with implementation of models such as **RBM** and **Autoencoders** in **PyTorch**
- Built a live **Proof of Concept** using **Javascript** and **Flask** which shows both the final output as well as the inner workings of the models used
- Currently in the process of filing a **patent** and **paper** for the approach and work done in the field

Project Verification Form - http://home.iitk.ac.in/~sahild/adobe/PVF.pdf

*More details can't be disclosed due to Non-Disclosure Agreement (NDA)