

Deep Learning Model Sharing Platform

● Group Members

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● Brief Description

The project our group has chosen to develop is a **sharing platform for deep learning models**. Our initial idea is to develop a web page with a homepage, login interface, user profile interface, and deep learning model interface with basic creation, query, modification, uploading, and commenting functions, based on the Github website format. If time and group members' ability level allow, we would like to continue to develop advanced functions such as adding co-creators, linking data sources, displaying learning results for the model and so on.

● Motivation

Deep learning is a branch of machine learning, an algorithm that uses artificial neural nets as an architecture to learn representations of information. In recent years, deep learning has become one of the buzzwords in the field of computing, and this technique has matured with the research, moving step by step from theoretical research to everyday use. This fervor culminated in March 2016 when news hit the press that AlphaGo, a program developed with deep learning, had beaten the best human players in a tournament for the first time. As more and more people became interested in this technology, new frameworks such as TensorFlow and PyTorch were invented, making it easier to apply the technology to all walks of life. With the widespread use of this technology in today's society and the personal interest of our group members, we came up with the idea of creating a platform for deep learning enthusiasts to store models for exchange ideas and sharing experience.

● Features

➤ Core Features

1. Main Page
 - a) Briefly explain the purpose of this website
 - b) Showcasing the original motivation of developing this website
 - c) Allow users jump to the User Profile Page by operations such as sign up/log in
(Also allow basic operations such as change password)

2. User Profile
 - a) Display the user's username, profile picture and personal model list, model list supports jumping to model display page
 - b) Set a query button to support jumping to the search page
3. Search Page
 - a) Support search by title for all models in the website database and return a list of models that meet the search requirements
4. Model Display Page
 - a) Single model display interface, support for the creation of model names and brief descriptions
 - b) Display full model details
 - c) Provide "Update" button to support jumping to the update model page
5. Update Model Page
 - a) Provide functions to modify, save and delete model name, brief description and content
6. "Model Data" Function
 - a) Allow users to add data content link to the model and display results
 - b) Allow users to add data sources for the model to use
7. "Model Comment" Function
 - a) Allow other users to comment and leave messages on a model for communication, support the function of creating and deleting comments

➤ Extra Features

1. Data Pages
 - a) Single data display interface, support for the creation of data contents
 - b) Display full data details
 - c) Provide "Update" button to support jumping to the update data page
 - d) Provide functions to modify, save and delete data content
2. "Comment" Function
 - a) Allow users to leave comments content to both the model and data display pages, then display results
3. Other Optimize Function
 - a) Webpage link function: support links and jumps between model and data pages
 - b) Classification retrieval function: support users to choose targeted retrieval by data or model
 - c) Support the display and linking of user-created content on user's profile page
4. Some interesting or weird..? features
 - a) Just displaying the learning content is too boring, we consider adding some interesting elements to the webpage

● Github Repository

https://github.com/Wyundi/M_Hub