Jerry(Peicheng) Gu

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EDUCATION

Saint Louis University - *M.S in Computer Science, 2023*

Relevant Coursework:Principles of Software Development, Intro to Machine learning, Databases, Algorithms in Computational Biology

Zhongshan College of Dalian Medical University - *B.S in Medical Information Engineering, 2018*

SKILLS

Programming Languages: Python, Java, JavaScript, C/C++, SQL, HTML
Framework: Ajax, Django, Node.js, JQuery
Tools/Platforms: MySQL, MongoDB, Docker, Oracle, Git, Pycharm, Unity 3D, Visual Studio, AWS

PROJECT EXPERIENCE

Food Online Ordering System(http://www.zglg.work:8001/) Aug 2022–present

- Using Django-based framework to develop a web system that allows users to order food online and check the order status.
- The system supports authentication for users and administrators. It allows customers to view dishes and order information, administrators can modify order status and dishes information. Data from forms in web pages is stored and used directly through Django encapsulation.
- The challenge of this project was to interact with the graphics on the page, I used JavaScript to address the challenge in interacting with the graphics on a webpage and making the images scroll by themseleves.
- This tool helps customers to order food better, and businesses can also more easily show customers the food information.

Travel Search System(http://zglg.work:8002/) Aug 2022–Nov 2022

- Using Django and MySQL to develop a travel search system, including the front end and the back end of the mutual response and the front end of the successful display of all kinds of query results.
- The front end consists of four pages, the initial page, the attractions page, the restaurant page and the hotel page. The database contains three tables, attractions, restaurants and hotels. Users can view all the data for tourist, restaurants and hotels, and search by terms or sort.
- The challenge was that I could not access the web page smoothly after the completion of the website. I successfully accessed the web page by checking the access limit of the server and whether the port of the web page was open.
- This is an experimental system that enables tourists to find and search tourist attractions, restaurants and hotel information.

Analysis Of US Stock Trading Data May 2022–Dec 2022

- Analyzed more than 30,000 US stock trading data using NumPy and Pandas.
- The following information was analyzed to obtain: The tick speed (trades per second) and turnover (trade amount per second) calculated per second in separate rows; The cumulative uptick and downtick turnover within that second; The VWAP (volume- weighted average price) for that second, which is the cumulative turnover divided by the cumulative volume; Using the price of the previous trade before time T (referred to as P) , calculate the time points when the price increases or decreases by 0.5%, 1%, 1.5%, or 2% after time T; Calculate the maximum percentage of price increase and decrease during the observation period N, which starts at time T.
- A GUI software was created using PyQT5 that incorporates Matplotlib components to display real-time dynamic data of stocks on a per-second basis, as well as visualizations of the key data mentioned above.
- This tool can visually show the highest and lowest prices of stocks in a period of time and the rise and fall range, helping investors to better grasp the stock dynamics.

Machine Learning Project May 2022–Aug 2022

- Experimented with the FashionMNIST image data set using different models and calculated the prediction accuracy of the training set and validation set.
- Visualized the classification confusion matrix to examine the prediction details of each class and reported the classification of the test set.
- Deployed the machine learning model on huggingface to output the class probabilities predicted from the selected machine learning model.

ACTIVITIES&HONORS

- Walk to Azhamer (2019)
- Social services at STL book shop, preparing books for children(2019)
- Runner-up in college basketball(2014)
- Third class scholarship(2014)