Performance Assessment 1: Chat Bot

Student Name: Bryan Yang

Student ID: #001303738

Student Email: byang10@wgu.edu

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C951 Introduction to Artificial Intelligence

## A. Functionality

This chatbot helps to reduce the manual workload for computer science career advisors because it helps computer science students to decide for themselves which career is the most interesting choice for specific to different individuals. This chatbot achieves by providing popular tech careers related to computer science with brief descriptions along with external links to Bureau of Labor Statistics on different role within the tech career space (Lazarevick, 2017). This chatbot also gives self-assessment for students to take to pin-point on the most suitable career based on the user’s choices.

Finding out about the target audience was the first step in the development process for the chatbot. Meditating on the audience helped the development design and implementation decisions to meet the end goal of the computer science career advisors within the computer science departments and the students as users (Jain, 2018).

## B. Chatbot Recommendations: Five + One Computing Job Types

1. Software Engineer
2. Computer Engineer
3. Web Developer
4. UI/UX Engineer
5. Database Administrator
6. Information Security Analyst (extra)

## C. Generated Chatbot Code Files

The code zip file is provided along with the chatbot overview and instructions.

## D. Training Cases

Knowing the limited ability of the chatbot, the chatbot was trained to direct the most of user interaction. As native response, the chatbot’s default response to all unknown input was “I have no answer for that” (Thomas, 2018). To further develop and train the chatbot, I utilized the AIML’s syntax <srai> tag to directly handle any unrecognizable input to a category of providing career resources for the user.

Also, knowing that majority of students may be curious to know the salary of the software engineers and other roles, I trained the chatbot to handle this case by utilizing the AIML wildcard (\*). The wildcard was used before and after the career name such as software engineer (Tokin, 2019). This cases the chatbot to directly put any input that contains the job type to the appropriate category with information and resources on the specific career that subject user is interested in. This was done for all the six job types.

## E. Chatbot Installation Manual

Below are the steps for running the AIML files in Pandorabot.

1. Go to [www.pandorabots.com](http://www.pandorabots.com)
2. Create or sign-in to your Pandorabots account.
3. Click on the plus button next to “MY BOTS” on the upper left corner of the screen.
4. Name and create a chatbot.
5. Select a chatbot name on the left pane.
6. Click on “Edit” button from the drop-down menu.
7. Select “Code Editor” option.
8. Next, click on “file” -> “upload” -> “Select Files”.
9. Go to the AIML files.
10. Upload the AIML files for the project.
11. Click on the circular chat button in the bottom right corner.
12. Start the chat with the bot with “Hi”.

## F. Strengths & Weaknesses of the Chatbot Development Environment

The Pandorabots development environment’s strength is the ability to launch the chat widget and start beta testing responses as a developer program the chatbot without requiring an external tools or complier. Also, the development environment is software as a service (SAAS) meaning it can be used any type of operating systems or computer. The develop team can develop a same chatbot from anywhere at any time (Tokin, 2019). The weakness may be the quick reference/guide to develop the tool or navigate the interface. It was confusing which file I’m running in the beginning if I had multiple files referencing each other. I wish there was a quick walkthrough option for the developer. Also, only two chatbots are allowed for the free version (Aadish, 2018). This is extremely limiting for any developers who are testing the system possibly trying to replicate or implement certain aspects of their projects. I wish Pandorabots gave more options and tools for the free version as the paid versions for new users to try some of their power features and capabilities.

## G. Chatbot Monitoring and Maintenance

The monitoring of the chatbot is relatively easy. The GUI of the website allows extremely easy to tract the interaction of each chatbot with detailed breakdown and chat histories. The chatbot tracks the response of the questions with meaningful information and the breakdown of the user inputs (chat logs and metadata within). The maintenance of the chatbot is also simple. If the website links to career references are valid there is no need to do anything else to maintain the system since Pandorabots maintain the server and possible connectivity to other websites such as Amazon, Google, etc. where the chatbot will be deployed (Aadish, 2018). The chat can be improved by viewing the logs as part of the monitoring process periodically and more applicable and realistic answers and questions can be added.

## H. Panopto Video Recording

Video Link: <https://wgu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=142f4d47-00e4-4942-95a6-af66017732c6>

## I. References

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