PenguBot Report

Github: https://github.com/meintgl/PenguBot
Last updated: 4/15/23
Current TFT Set: 8.5
Current Patch: 13.8

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Welcome to the report for PenguBot, a chatbot for your TFT needs. PenguBot is built upon NLP techniques such as user response parsing that assist in the analysis and categorization of text that relates to TFT queries. PenguBot implements live lookups that gather live data from reputable TFT websites such as lolchess.gg and MetaTFT. This ensures that information is fresh and up-to-date, as the meta evolves with patches released in a biweekly cycle. Thus, it is PenguBot's mission to provide players and users the most up-to-date data.

It is important to note that this implementation of PenguBot is in beta. While the initial implementation contains dialogue samples and designed paths that highlight the core of TFT, there may be features and data that are incomplete which will be added later. Currently, the focus is fluid dialogue, and answers from PenguBot the essentials of TFT, **and champion live data.** Over time, PenguBot will be developed to have more data and better responses to questions from all users.

PenguBot allows users to ask general questions about the game, and specific information about core mechanics. These questions can be categorized as:

- In game questions (questions about the game)
- Champions (units from a shop that players buy to "fight" for their team)
- Champion statistics

System Description

Storing User Models

      PenguBot initiates a conversation by asking the user for their name. Then, it creates a user profile that stores various information about a user, with the username initialized and other variables set as null until the user shares that information later. Listed below are the different information stored about a user, and which categorical section it can be asked in.
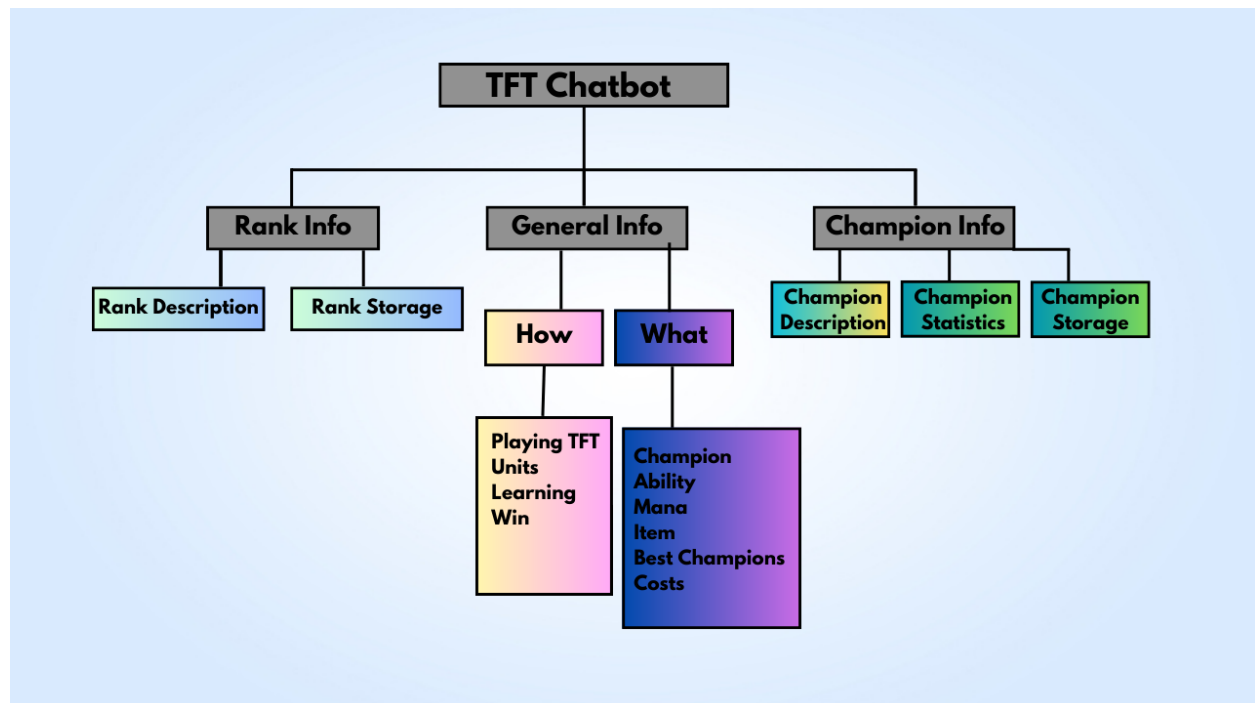
Introduction
[username] = users name inputted in the beginning
[rank] = rank of user
[fav_champ] = favorite champion of user

NLP Techniques used include processing user input, tokenizing, web-scraping for information, pickling and unpickling, and data storage.

Diagram Tree

Knowledge Base / Live Lookup

With PenguBot's initial implementation, web-scraping was used to collect information on champion statistics. The website in question is https://www.metatft.com/units, which uses many JavaScript components that make regular BeautifulSoup access for scraping unusuable. Instead, Selenium and its Chrome webdriver were used, and the make-up of the site had to be parsed using XPATHs. These statistics include the name of the champion, the tier of champion (letters S through D), the average placement (from 1 to 8, where being closer to 1 is better), the win rate percentage of the champion, and the frequency of usage from the champion. The statistics are found through the *champion_extraction.py* program and are pickled into *champs.p*. The chatbot unpickles *champs.p* and uses that information as its knowledge base.

The website https://www.metatft.com/units is updated live with incoming statistics. Every time *champion_extraction.py* is run, it will access the latest information from the website.

The knowledge base is stored in a dictionary, where the champion name is the key and the following statistics are values. An example of information stored in the knowledge base is as follows:

'Syndra': ['S', '3.59', '20.4%', '64,389 (8.8%)'

Where 'Syndra' is the champion name, 'S' is the tier, '3.59' is the average placement, '20.4%' is the win rate percentage, and '64,398 (8.8%)' is the frequency.

Evaluation

The chatbot performs solidly if the user has understood knowledge of champions and ranks within the game of Teamfight Tactics. Without said knowledge, lots of depth within the bot is not reached. It still has general questions that can be asked, but a large amount of information pertains to champions and ranks.

Additionally, the bot is very precise with the input it accepts, and may have problems understanding certain wordings or approaches to questions and/or answers. Please try

again with wordings found in this document, or remove punctuation, to see if your request can be processed. It ultimately has a limited set of words it can understand.

Nonetheless, it holds a great deal of useful scraped data that can be displayed if the user can navigate to that point

Conversation Flow Examples

Bold black text = bot output
Blue text = user input
Green text = intent
Grey text = action

1. Introduction

Stored queries:
[username] = users name inputted in the beginning
[rank] = rank of user
[favorite_champion] = favorite champion of user

"Hello, I am PenguBot! I can chat with you about things related to Teamfight Tactics, an autobattler round-based PVP game where you draft champions from League of Legends. If you need help at any time, ask me "What can you do?". Feel free to share your rank, or favorite champion in the game., What is your name?"

intro_response
Hello, my name is [username] /
My name is [username]
[username]
I am [username][.....]
I'm [username][......]

Creates new user profile, and store username

Hello [username]! Feel free to ask me questions about TFT.
Hi [username]! Don't hesitate to ask me anything about TFT.
Hello [username]! Ask me questions you have about TFT.

2. General Questions
Greetings, casual conversation, options, no answer and more.

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greeting
Hi
Hey
Hello
Greetings
Yo

greeting response
Hello, hope you are doing well!
Hi, hope you have a good day!
Hello!
Hi!

Good_morning
good morning
morning

Good_morning response
Good morning!
Good morning! The birds are chirping, the sun is out, and… guess I'll play some TFT.
Morning! It's the perfect time to play TFT.

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goodbye
see you later
goodbye
thank you for having me
Until next time
Bye bye
Bye
Cya
Take care
Farewell

goodbye response
Goodbye! Thank you for chatting with me.
Bye bye!
See you later! Take care!

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creators
Who made you
Who created you
Who developed you
Who were the people that made you
Where are you from

Creator response
I was made by Meinhard Capucao and Hrithik Ochani.

How_are_you
How are you
How's it going
What's up
How are you doing

How are you response
I'm doing good! I'm here to answer your TFT questions!

My favorite champion, my favorite champ
user_favorite_champ
My favorite champion, my favorite champ
My favorite champion is [favorite_champion]su
My favorite champ is [_____]

user_favorite_champ response
Nice! I like how your favorite champion is [favorite_champion].
That's an interesting choice, I really like [favorite_champion].
[favorite_champion] is very cool!

Favorite_champ response

Syndra
Nunu & Willump
Janna
Fiddlesticks
Urgot
Mordekaiser
Leona
Ultimate Ezreal
Gnar
Miss Fortune
Kai'Sa
Poppy
Garen
Ekko
Viego
Pantheon
Twisted Fate
Ezreal
Lucian
Sivir
Neeko
Lulu
Shen
Annie
Alistar
Rell
Pyke
Morgana
Samira
Nilah
Warwick

Sylas
LeBlanc
Aurelion Sol
Ashe
Blitzcrank
Camille
Yasuo
Fiora
Zac
Renekton
Jinx
Lux
Sona
Riven
Jhin
Vayne
Aatrox
Bel'Veth
Vex
Nasus
Wukong
Gangplank
Jax
Lee Sin
Malphite
Vi
Rammus
Draven
Kayle

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bot_favorite_champ
your favorite champion, your favorite champ, champion you like the best
What is your favorite champion?
Which champion do you like the best?
Which champ do you like the best?

bot_favorite_champ response

My favorite champion is Blitzcrank! He's a robot, just like me…

User_rank
Contains: iron, bronze, silver, gold, platinum, diamond, grandmaster, challenger

My rank is [user_rank]
I'm [user_rank]

stores user's rank
User_rank response
Iron: Everyone starts somewhere! Keep grinding and you can climb the ranks!
Bronze: Some of my friends are made of bronze, but that's not a bad rank to have!
Silver: Looks like you are silver! A few tips and studying, and you can climb in no time!
Gold: Looks like you are Gold! Most players lie here, a few tricks and cleaner gameplay will have you climb in no time! I'm here to help!
Platinum: Plat is where the games start to get a bit harder! Keep on playing and improving, I'm here to help!
Diamond: One more division till Masters! This is where things get a little harder. Keep playing and improving, and you'll make it there in no time!
Master: Whoa, you're Masters? That's awesome, you are in the top 1% of all players. Keep on playing and studying, and you'll climb greater heights in no time! I'm here to help!
Grandmaster: Wow, amazing… Hitting Grandmaster takes a lot of skill and patience, I am very proud of you! You are among the top 600 players in your region. You are almost Challenger, I know you can do it.

Challenger: Whoa… Being Challenger means you are among the best of the best in TFT. Congratulations! I need to ask you questions!

User_name

[username]
What is my name?
My name is [username]

User_name response
Your name is [username] with a stored rank of [user rank] and a stored favorite champion of [user favorite champion].