# The Best of Bots: Identifying Top Performers with SQL Analysis

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https://github.com/andietometsko/Chatbot\_Performance\_Analysis

AI Chatbot Analytics for Advanced Development For: AI Development Team Addressing: Unclear chatbot performance metrics Analysis: Analyzed chatbot accuracy, latency and user reviews

# Job Alignment: Skills and Responsibilities

## We pay smart folks to train Al.





#### Mobile App Developer - Al Trainer

DataAnnotation ☑ 3.9 ★ Remote Remote

#### DataAnnotation

★★★☆ <u>592 reviews</u>

Read what people are saying about working here.

### This Analysis Applies

- Train and evaluate AI chatbots.
- Use Python, SQL, and other coding languages.
- Solve coding problems and explain solutions.
- Measure chatbot performance and accuracy.

#### Full job description

We are looking for proficient programmers to join our team to train our AI chatbots to code. You will work with the chatbots that we are building in order to measure their progress, as well as write and evaluate code.

To apply to this role, you will need to be proficient in either Python and/or JavaScript. Your role will require proficiency in at least one programming language/framework (JavaScript, TypeScript, Python, C, C#, C++, HTML/CSS, React, Go, Java, Kotlin, SQL, or Swift) in order to solve coding problems (think LeetCode, HackerRank, etc). For each coding problem, you must be able to explain how your solution solves the problem.

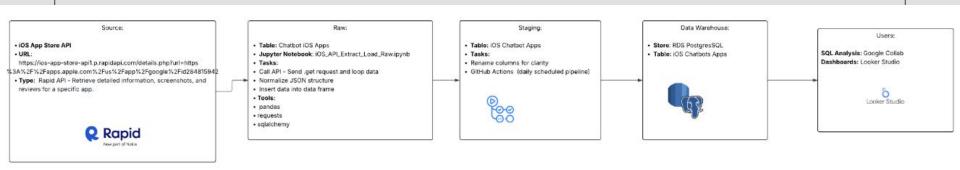
As part of the application process, you will be asked to complete an assessment. If you pass, you will gain access to projects. Based on the quality of your work, you will continue to receive projects regularly. We find our most successful candidates work between 5-20 hours per week, up to 40 hours.

## API Data Source: iOS App Store API

Data Collected:

App Name, App Store URL, Description, Rating Value, Review Count. Category Relevance

API data extraction and processing



## High-Performing iOS Chatbots: What Users Love

#### **Business Question:**

Which iOS chatbots have the highest average rating?

## Insight:

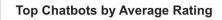
High ratings + high review count = trusted chatbots

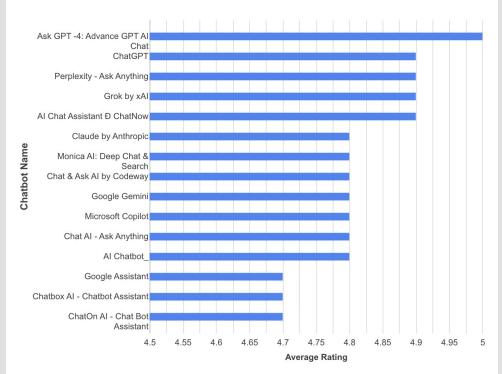
#### Recommendation:

Choose chatbots with both high ratings and review counts to base training on

#### **Prediction:**

Top rated, widely-reviewed chatbots will lead the market





# Top Chatbots: Balancing Ratings and Popularity

#### **Business Question:**

Best iOS chatbots by rating and popularity?

## Insight:

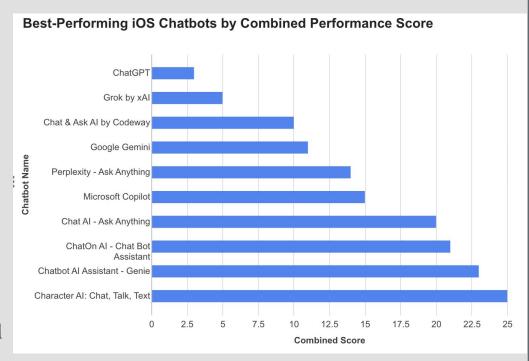
Top chatbots (ChatGPT) excel in both rating and review count.

#### Recommendation:

Inspire training based on chatbots with a low combined scores

#### **Prediction:**

High-rated, widely-used chatbots will lead

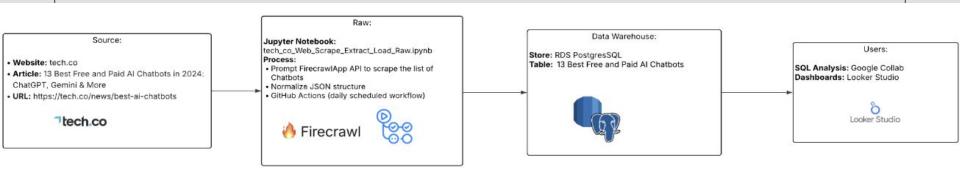


# Web Scrape Data Source: Teco.co

Source: https://tech.co/news/best-ai-chatbots

Data Collected: Model Name, BestFor, Plan, CreatedBy, Pros, Cons

Relevance: Identifying top chatbot performers



# Let's pivot to a public dataset!

Data:

Model, Category, Domain, Query Type, Latency, Response Accuracy, Performance Time, Memory Useage, Concurrent Queries, Optimization Technique, Notes

Source: <a href="https://www.kaggle.com/datasets/mussaddiqahmed/local-ai-chatbot-performance?resource=download">https://www.kaggle.com/datasets/mussaddiqahmed/local-ai-chatbot-performance?resource=download</a>

# Top Chatbots: Accuracy vs. Performance

## **Business Question:**

Which chatbots have the highest average accuracy?

## Insight:

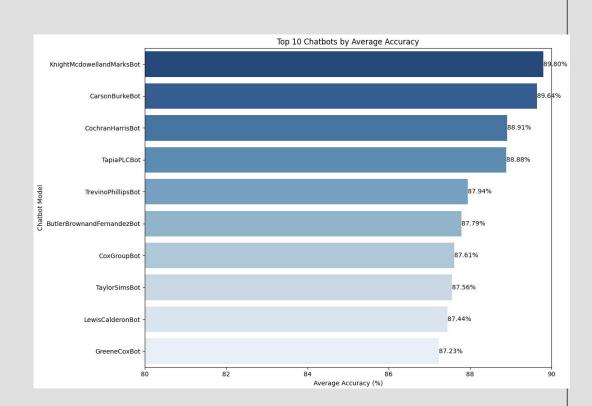
High accuracy often means higher latency and memory usage.

#### Recommendation:

Choose chatbots based on your priority: accuracy vs. speed.

#### Prediction:

High-accuracy bots may face performance issues without optimization.



# Chatbot Performance: Accuracy vs. Latency

## **Business Question:**

Which chatbots balance accuracy and speed?

## Insight:

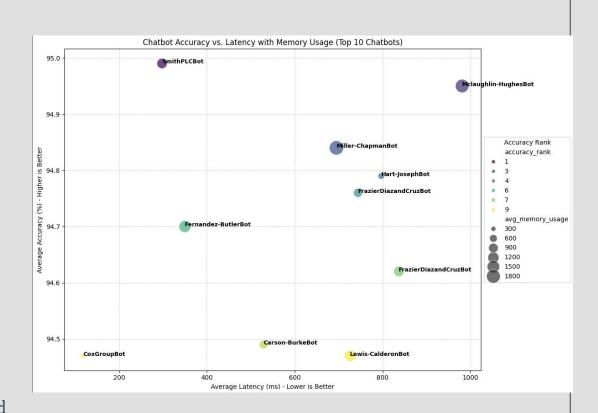
Higher accuracy means slower response time.

#### Recommendation:

Choose chatbots by priority: accuracy or speed.

#### **Prediction:**

High-accuracy bots may face speed issues.



# Making Data Work: Why I'm the Fit

**Ready to Contribute:** SQL expertise, data pipelines, visual analytics, and strategic insights.

**Proven Results:** 4 optimized SQL queries, 4 clear visualizations, 2 distinct chatbot datasets.

**Next Steps:** Implement findings to enhance chatbot selection and performance.

**Impact:** Elevate user satisfaction, streamline chatbot choices, and drive data-driven decisions.

**Value:** I transform complex data into clear, actionable insights.

