# **ChatGPT**: An Efficiency Evaluation Research

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**Data Files**

(https://drive.google.com/drive/folders/165Os_GXfkMv7N1pGzxDcrPh9TQo2sGh9)

**Video**

(https://youtube.com/)

**Code**

(https://github.com/dalenadangYU/ITEC4020A-Fall2024-Assignment/tree/f64786111ac78a5af51e8280cbe5c996c6423f49)

## Abstract

ChatGPT's responses to users' inquiries inputted demonstrates a high level of sophistication in the machine learning's capacity to comprehend and exchange communication fluidly. However, the responses (or answers) provided from ChatGPT and other machine learning language engines have been observed to be sometimes inaccurate. The ChatGPT Efficiency Evaluation Research conducted evaluates the accuracy of ChatGPT's responses to questions across the following topic domains: Computer Security, History, and Social Science.

## Research Approach

Provided a website-master template package, a portfolio landing page (https://dalenadangyu.github.io/ITEC4020A-Fall2024-Assignment/) was quickly put together as an introduction to the student collaborators that worked on the assignment. I, Dalena Dang, worked on the assignment alone, thus only one student name has been provided in the portfolio landing page and on this evaluation research page.

### The Setup: MongoDB & Mongoose

Provided (3) three .csv files (https://drive.google.com/drive/folders/165Os_GXfkMv7N1pGzxDcrPh9TQo2sGh9), each preloaded with rows of multiple-choice questions with (4) four potential answer options, and the correct

answer; a non-relational database was created using MongoDB Atlas (https://cloud.mongodb.com/v2/652f113698706805148ab022#/clusters/detail/itec4020a) with the name 'ChatGPT_Evaluation'. The (3) three .csv files were uploaded into separate collections: 'Computer_Security', 'History', and 'Social_Science'.

We adopted MongoDB's ODM (Object Data Modelling) library to build a schema for the ChatGPT_Evaluation database which will be routed to via Node.js.

### The Tools: Node.js, Express.js & EJS

Node.js is a platform built on Chrome's JavaScript runtime for easily building fast, scalable network applications. Node.js has a built-in package manager, Node Package Manager (NPM) which was used to allow server-side scripting to perform on a local server. We created a local server using Express.js.

Express.js is a Web Application Framework for Node.js that simplifies server creation, routing, middleware, and more. We use Express.js in this assignment as the backbone for our web research page and communication routing with the MongoDB database and ChatGPT's AI via RESTful APIs.

### The Technologies - ChatGPT API

Provided a ChatGPT API key, we integrated ChatGPT's

## Data Overview

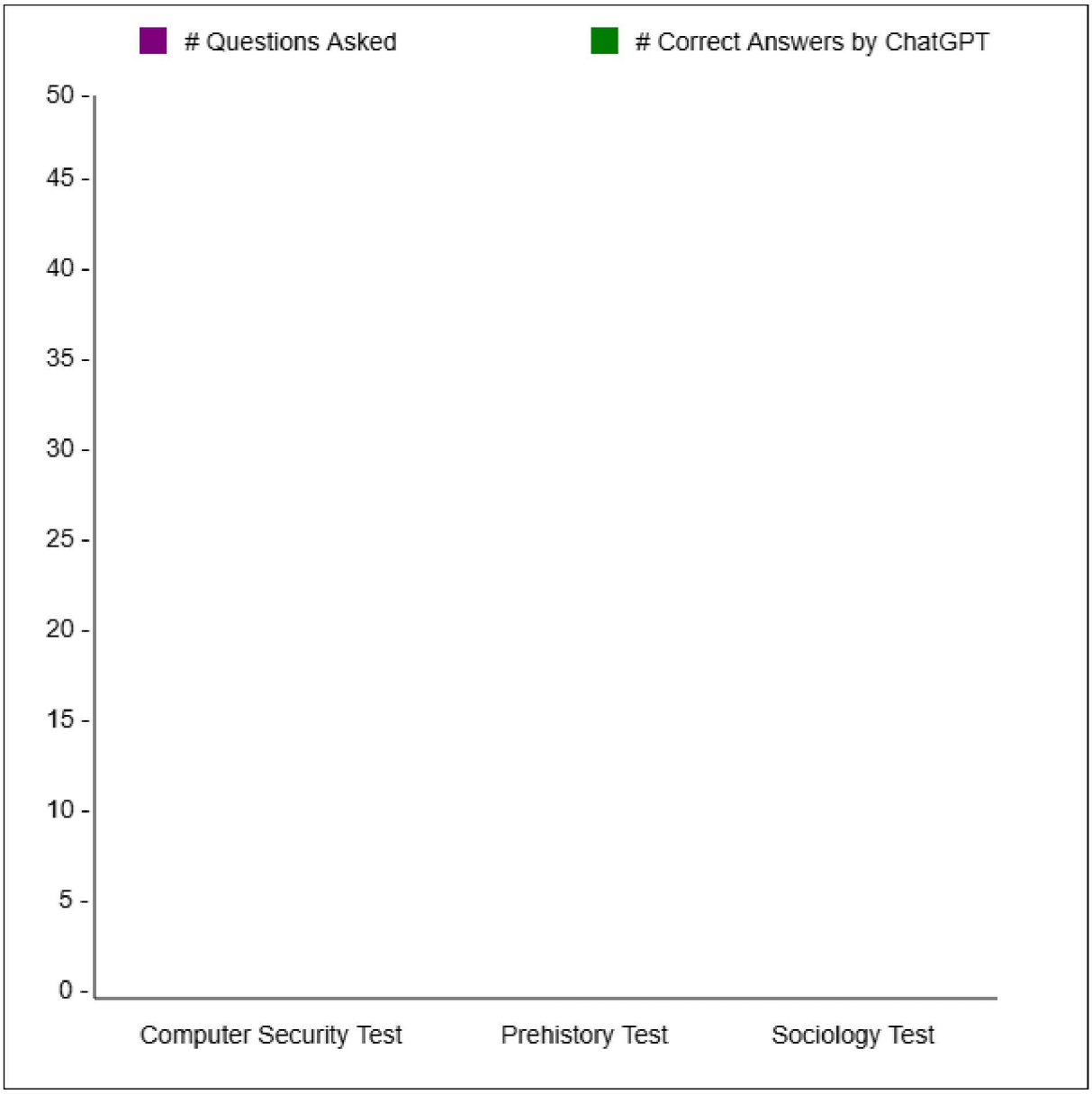
Provided (3) three .csv file types holding numerous questions, answer options, and the correct answer per tuple, the data was uploaded into (3) collections. Click on a collection to request a question.

Request Computer Security MCQ | Request History MCQ | Request Social Science MCQ

**Question:**

## Graph

ChatGPT's efficiency based on the results are as follows:




## Results

| Question | Option A | Option B | Option C | Option D | Anticipated Answer | ChatGPT's Answer |
|---|---|---|---|---|---|---|

There are no questions to display...

## Related links

## Citation

```
@article{dang2024chatgptefficiencyevaluationresearch,
  title={ChatGPT:
```

# Acknowledgements

The website template was borrowed from Michaël Gharbi (http://mgharbi.com/).