

**CMPT 276 - Project Proposal**  
**Git-Good**

015 - Mountains  
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## Overview

GitHub is a technology that many students are required to be comfortable with. Although they are exposed to this information through their school classes, many find that it isn't enough to satisfy hiring managers. Although basic skills are taught, most students find themselves not actively using GitHub outside of class to contribute to projects.

This website combines AI with GitHub to help new users level up their GitHub accounts. The application's features would include an **issue finder**, which would search and find beginner-friendly git issues in a specified language; this, combined with an **AI issue suggestor**, would make finding issues for beginners much easier. Another feature that this website would have would be a **readme reader** that can search a user's readmes and give feedback. To create a competitive environment that will encourage growth, a **comparable GitHub accounts** feature will allow for real-time comparisons between GitHub accounts. AI will also be used to help create nice **MD files**, whether it's an issue that needs a descriptive explanation or it's a template for a readme. Finally, the last tool that this website will include is a **chatbot** that can assist with getting started on a GitHub issue or ticket. By offering these features, this website will empower individuals and build their confidence while also accelerating their growth

This website's main target audience will be people who are looking to improve their GitHub skills for any reason. This can include beginners who are new to GitHub and do not know what they are doing, or intermediate users who need to check on their work or require help. The age group we expect these two groups will consist of is 15-25.

## APIS

**List of API's**

1. Github REST API (<https://docs.github.com/en/rest?apiVersion=2022-11-28>)
  - a. Use GitHub Issues to find issues that are tagged as good first issues to contribute to in a specified language. Example: GET  
[https://api.github.com/search/issues?q=label:"good first issue"+language:JavaScript+state:open+is:issue](https://api.github.com/search/issues?q=label%3A%22good+first+issue%22+language%3AJavaScript+state%3Aopen+is%3Aissue)
  - b. A GitHub profile comparer that will allow real-time comparisons of GitHub accounts.
  - c. A readme viewer: pulls up all readmes of a user. This will work by using the GitHub REST API to pull a selected user's READMEs.
2. GitHub-hosted AI Inference API  
(<https://github.com/marketplace/models/azure-openai/gpt-4o/playground>)
  - a. Chatbot to help with getting started on GitHub issues.
  - b. An AI issue selector that will pick an issue for the user based on their requests.
  - c. AI MD file maker will create templates or full MD files based on user input.
3. Microlink.io
  - a. Generate link previews of links without accessing the website.
  - b. Return the tech stack used to make the application from a link.
  - c. Display metadata and take a screenshot of the website without opening the link.
4. GEMINI API
  - a. AI explanation of the website.
  - b. Generate relevant tags for a website.
  - c. AI will check if the site looks misleading or fake.

# Personas

## Meet Tina, the inquisitive student!

**Age:** 20

**Education:** Bachelor's degree in Computer Science (In Progress)

**Occupation:** Full-time Student

**Family:** Single and live with parents

**Background:**

- lives in Metro Vancouver area, commutes to SFU Burnaby campus for school
- is a newcomer to using GitHub, and seeking for co-op job opportunity

**Characteristics:**

- energized in everything especially in learning new things
- overcomes the obstacles easily without despair

**Goals:**

- seeks a tutor that can help her for anything about using GitHub anytime.
- creates personal project and deploys it on GitHub

**Challenges:**

- never used GitHub
- struggles with generating decent documentation

**Behaviors:**

- eagerly tries new tools and features on GitHub, even if she doesn't fully understand them yet.
- googles and watches tutorials often, especially YouTube walkthroughs on GitHub basics.

**Quotes & Motivations:**

- "I just want someone I can message when I get stuck with GitHub."
- loves the feeling of learning something new - it energizes her and pushes her forward



## Meet Brandon, the intermediate coder!

**Age:** 24

**Education:** Bachelor's degree in Computer Science (Graduated)

**Occupation:** Full-time Software Engineer

**Family:** Single

**Background:**

- lives in Metro Vancouver area, commutes to the downtown Vancouver for work
- has hobby for working on his side projects during weekends

**Characteristics:**

- self-motivated and curious that he loves learning new technologies
- dedicated in contributions that he loves implementing useful tools for himself

**Goals:**

- wants to improve his skills in documentations
- wants to see his achievement in GitHub intuitively

**Challenges:**

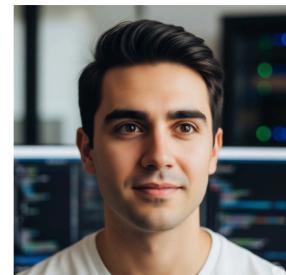
- needs improvement in his documentations to have a sufficient docs in his project

**Behaviors:**

- sets aside dedicated hours on weekends for uninterrupted coding on personal projects
- frequently explores dev blogs, newsletters, Reddit, and GitHub Explore for inspiration

**Quotes & Motivations:**

- "One of these projects could turn into something real if I keep at it coming up with good documentations"

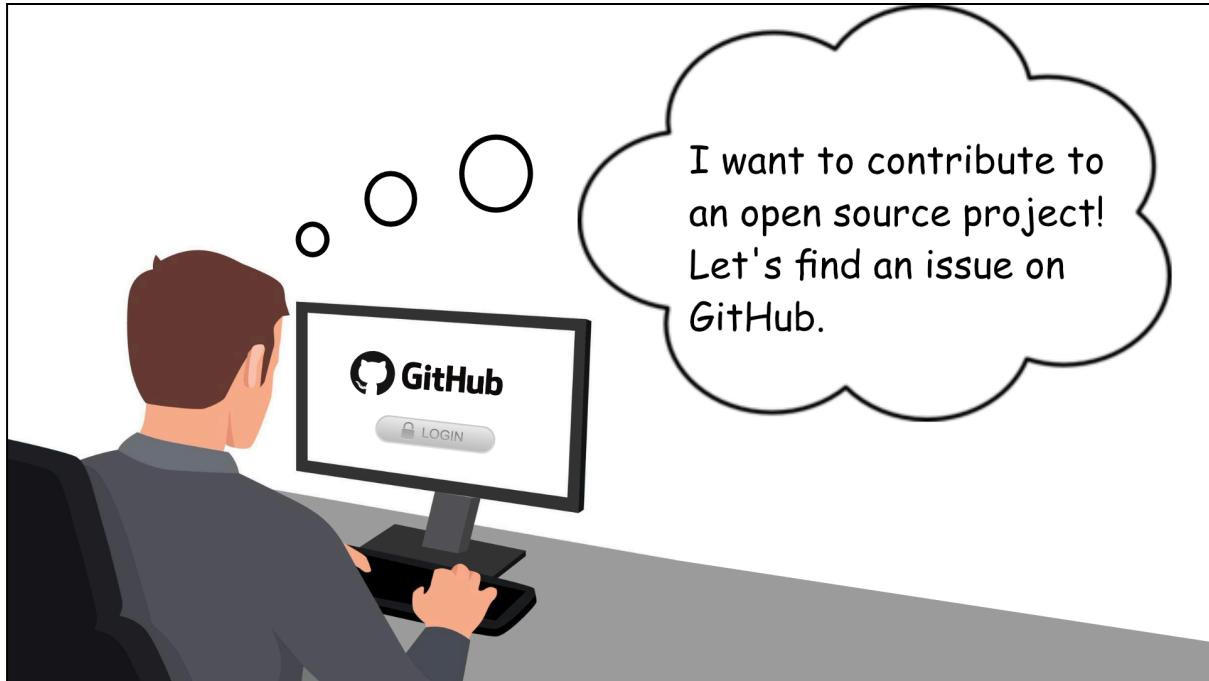


## User Stories

1. **Feature:** Use GitHub Issues to find issues that are tagged as good first issues to contribute to in a specified language.
  - As a **newcomer to GitHub**, I want to find issues that are tagged as a good first commit, in a language I know so that I can contribute to them and increase my GitHub knowledge.
2. **Feature:** A GitHub profile comparer that will allow real-time comparisons of GitHub accounts.
  - As an **enthusiastic coder**, I want to **see my GitHub stats** compared to others so that I **can motivate and encourage myself** to dive into coding more!
3. **Feature:** A readme reviewer checks a user's readme and gives feedback.
  - As an **active GitHub user**, I want to **receive some feedback on my README** in my repos so that I can **publish projects with sufficient documentation..**
4. **Feature:** Chatbot to help with getting started on GitHub issues.
  - As a **newcomer to GitHub**, I want to **have a conversation with a chatbot as a peer** so that I can **determine the exact issue** happening in my code.
5. **Feature:** An AI issue selector that will pick an issue for the user based on their requests.
  - As a **newcomer to GitHub**, I want a service to **automatically determine** a good issue to contribute to.
6. **Feature:** AI MD file maker will create templates or full MD files based on user input.
  - As an **open-source developer**, I want to **construct accurate and neat README files** for my repos.
7. **Feature:** Generate link previews of links without accessing the website.
  - As an **online blogger**, I want to **see the preview** of my blog posts so that I can **know how the preview of my post will appear to users before they click it**.

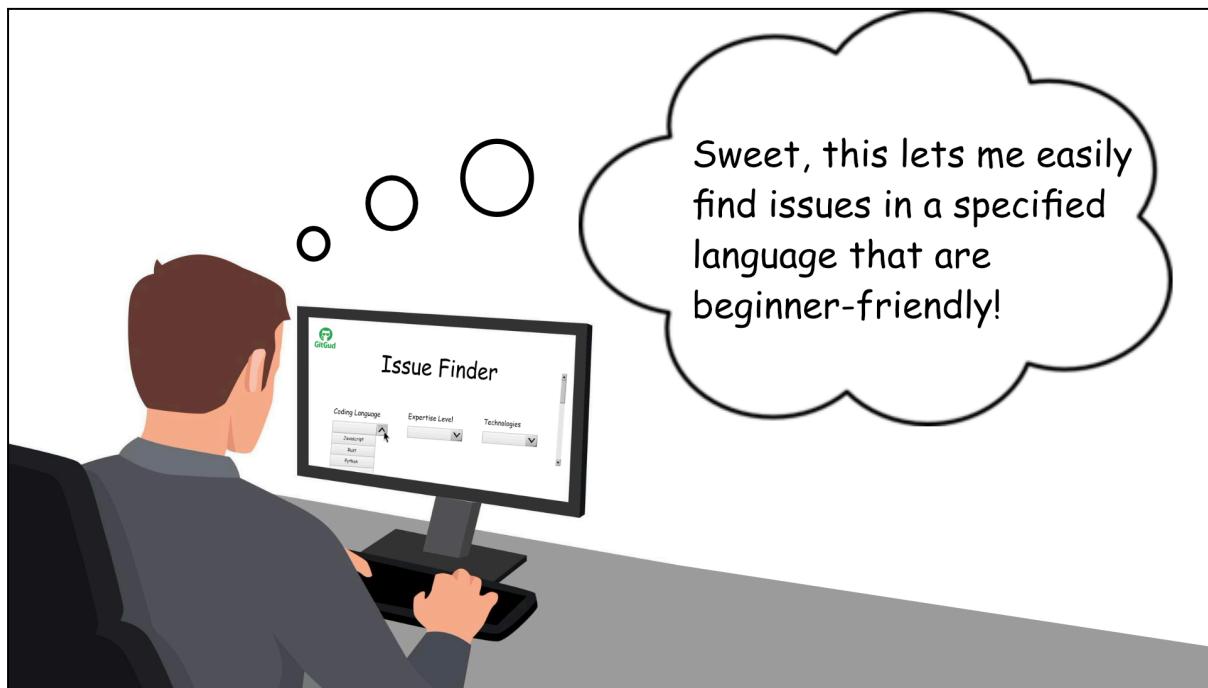
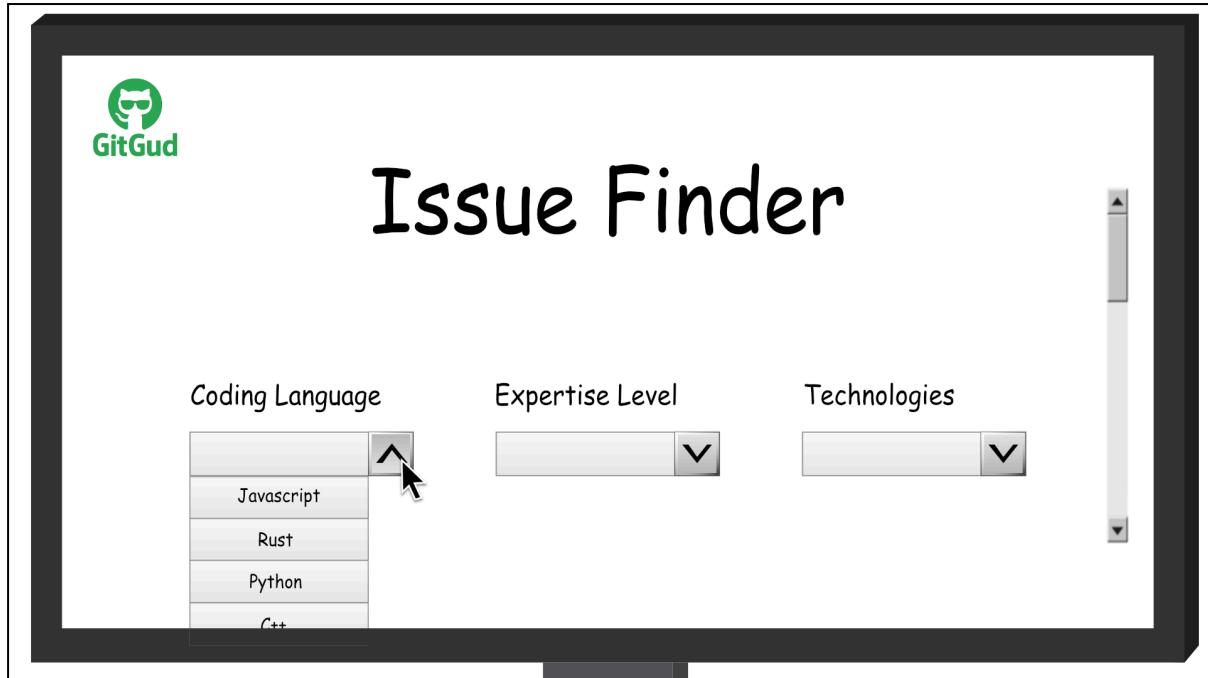
8. **Feature:** Return the tech stack used to make the application from a link.
  - As a **student learning to code**, I want to **know what tech stack this website uses** for development so that I can easily **start coding to mock the website**
9. **Feature:** Display metadata and take a screenshot of the website without opening the link.
  - As a **web developer**, I want to **know what colour theme** this website uses for its template from the **metadata** so that I can **refer to it** in my personal frontend project!
10. **Feature:** AI explanation of the website.
  - As a **web explorer**, I want to **see an expert explanation** of the online community that I'm newly interested in so that I can **easily adapt to their web culture**.
11. **Feature:** Generate relevant tags for a website.
  - As a **researcher**, I want to **make relevant tags** of websites for my research so that I can **organize the sources** with the bookmarks!
12. **Feature:** AI will check if the site looks misleading or fake.
  - As an **online shopper**, I want to **check if this website is reliable or secure** so that I can **safely explore it** for my online shopping.

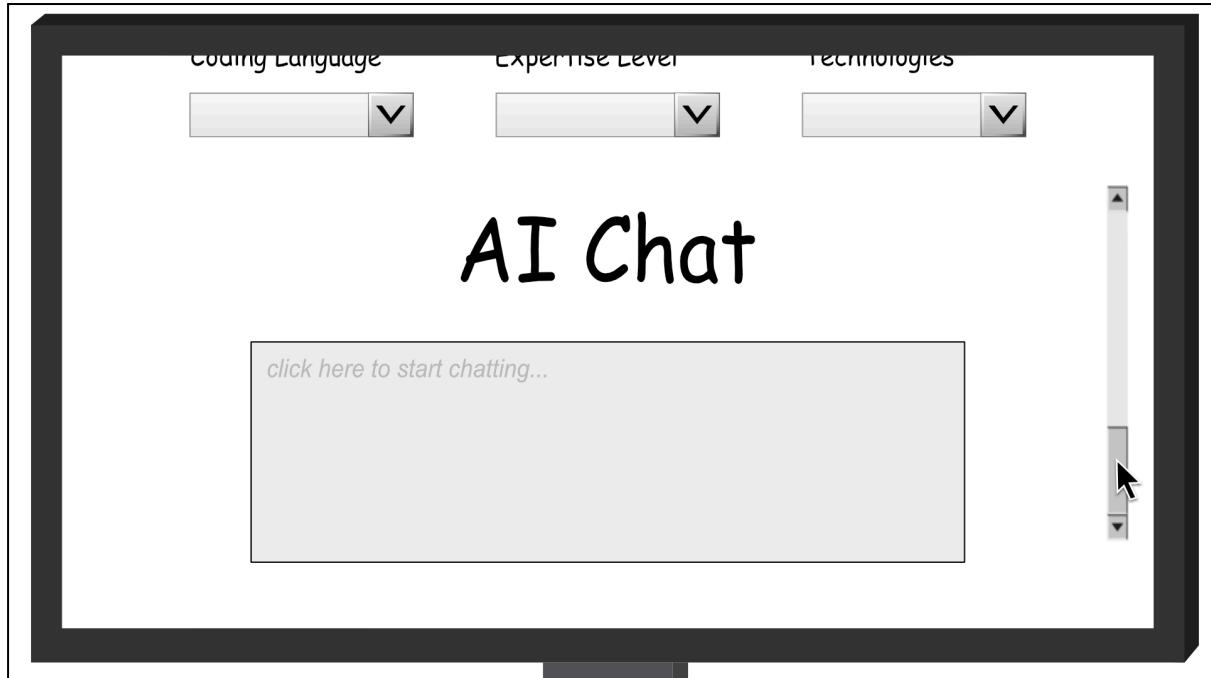
## User Storyboard

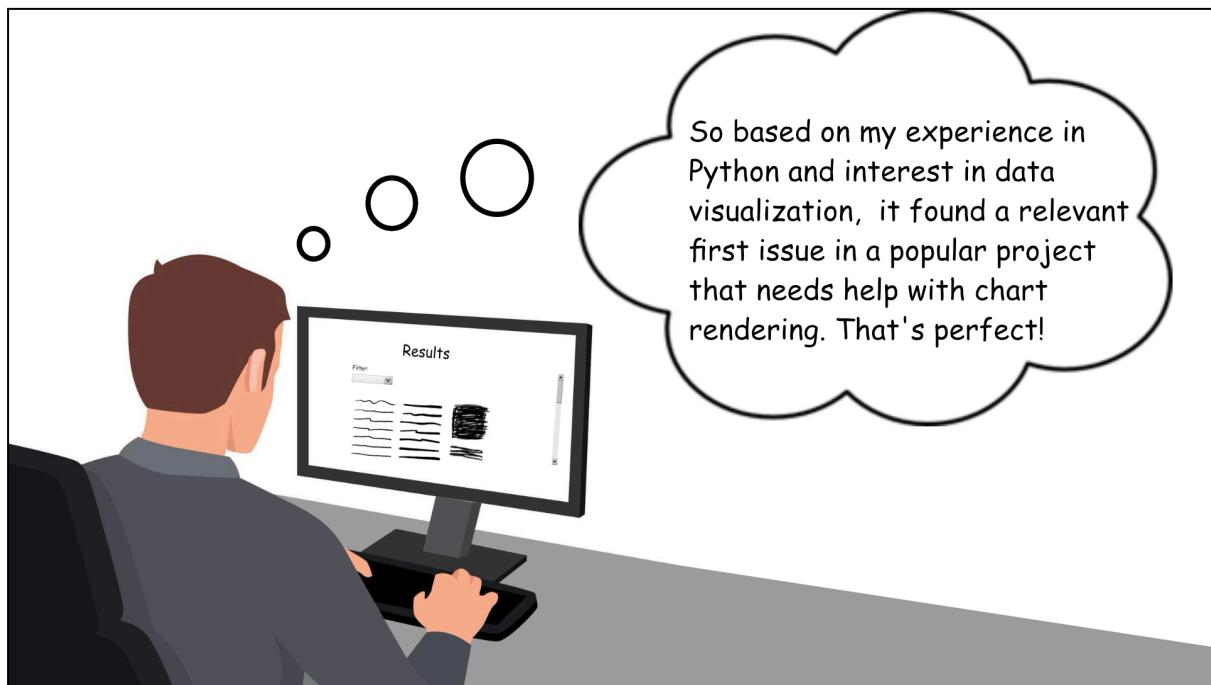
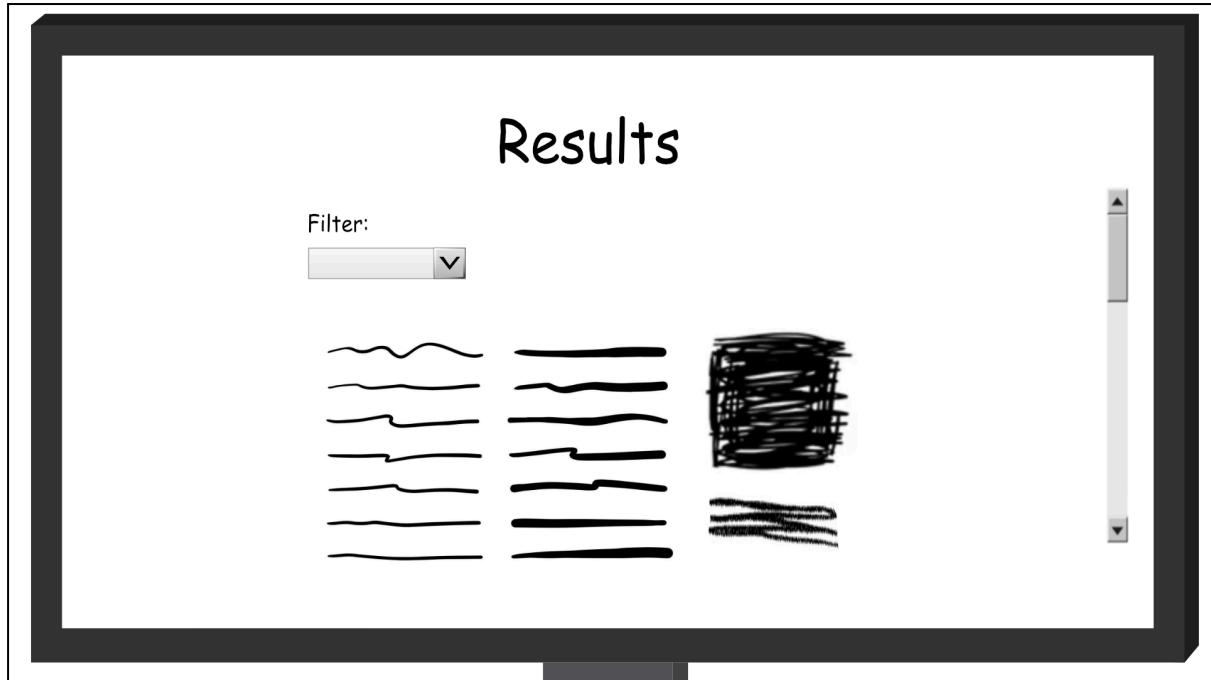


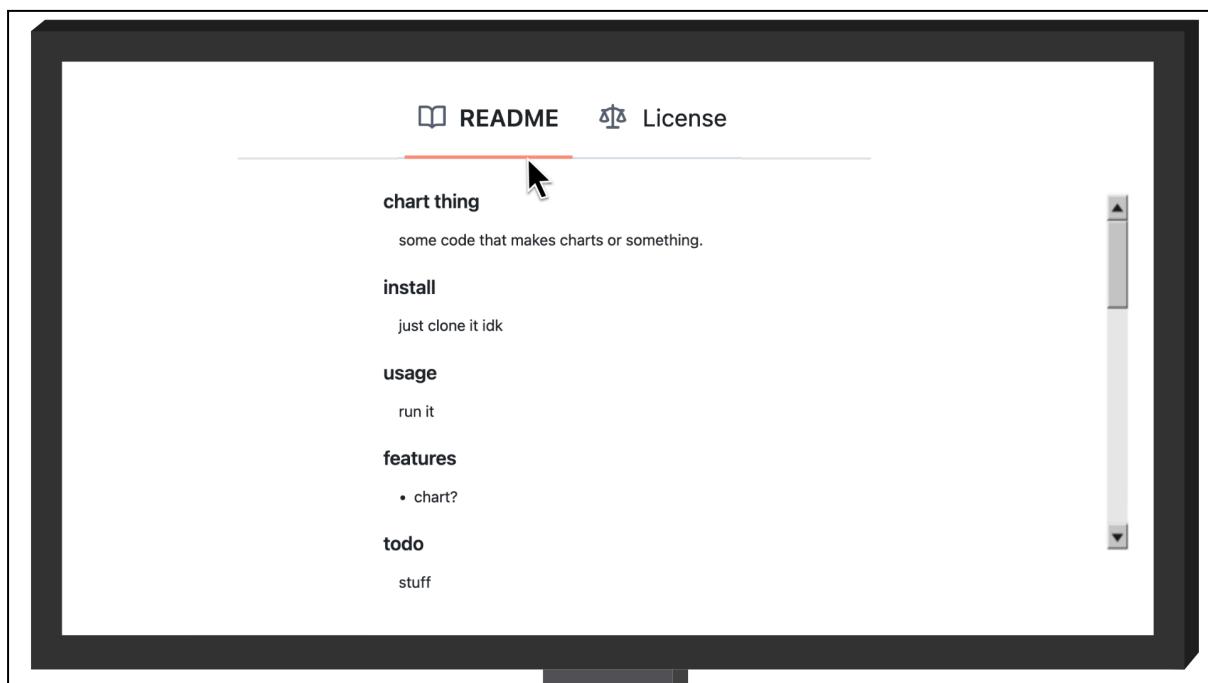
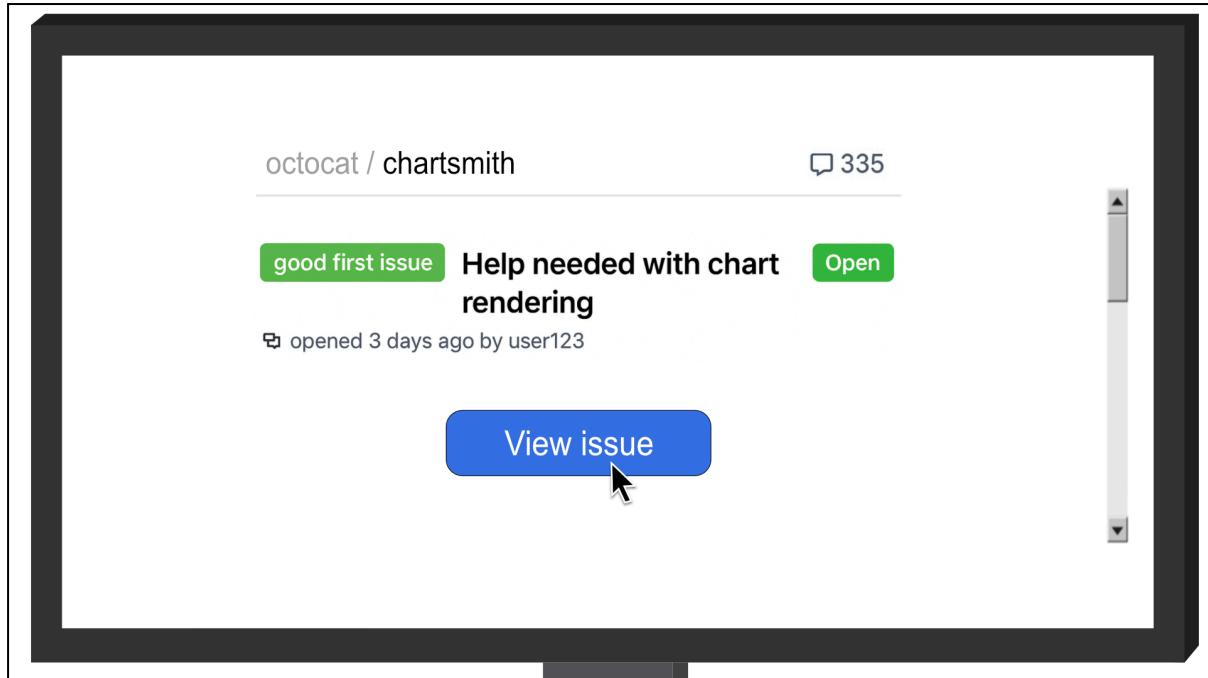


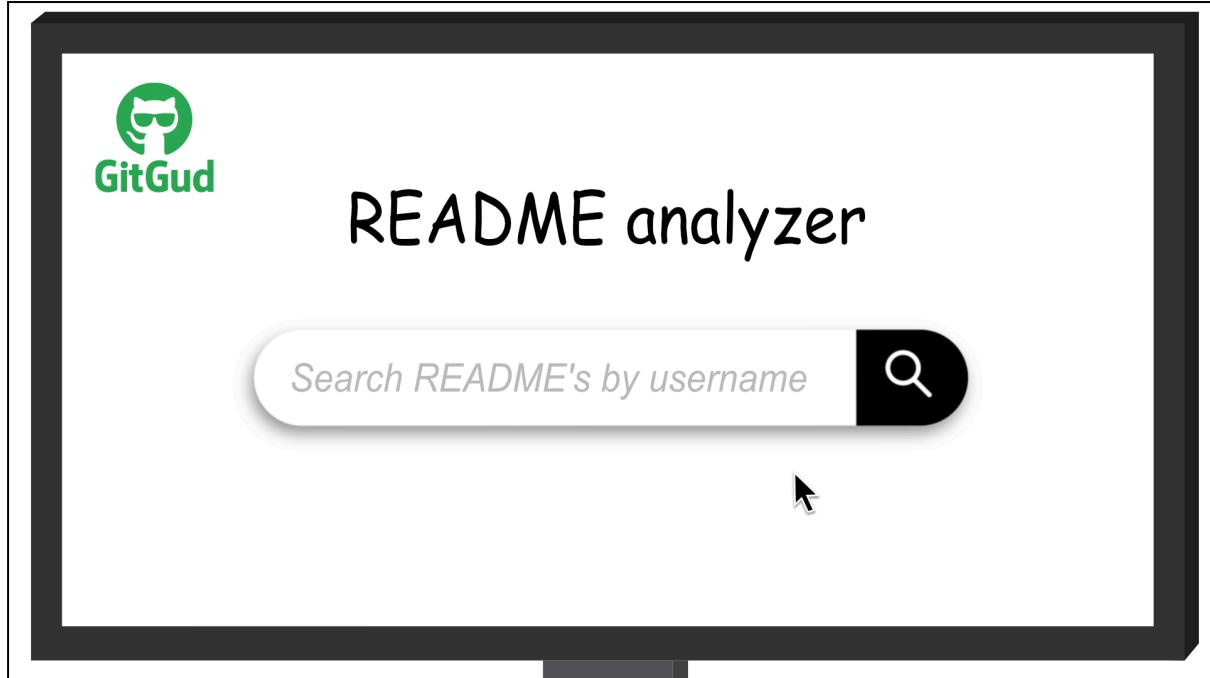
**Note:** this is just a placeholder logo

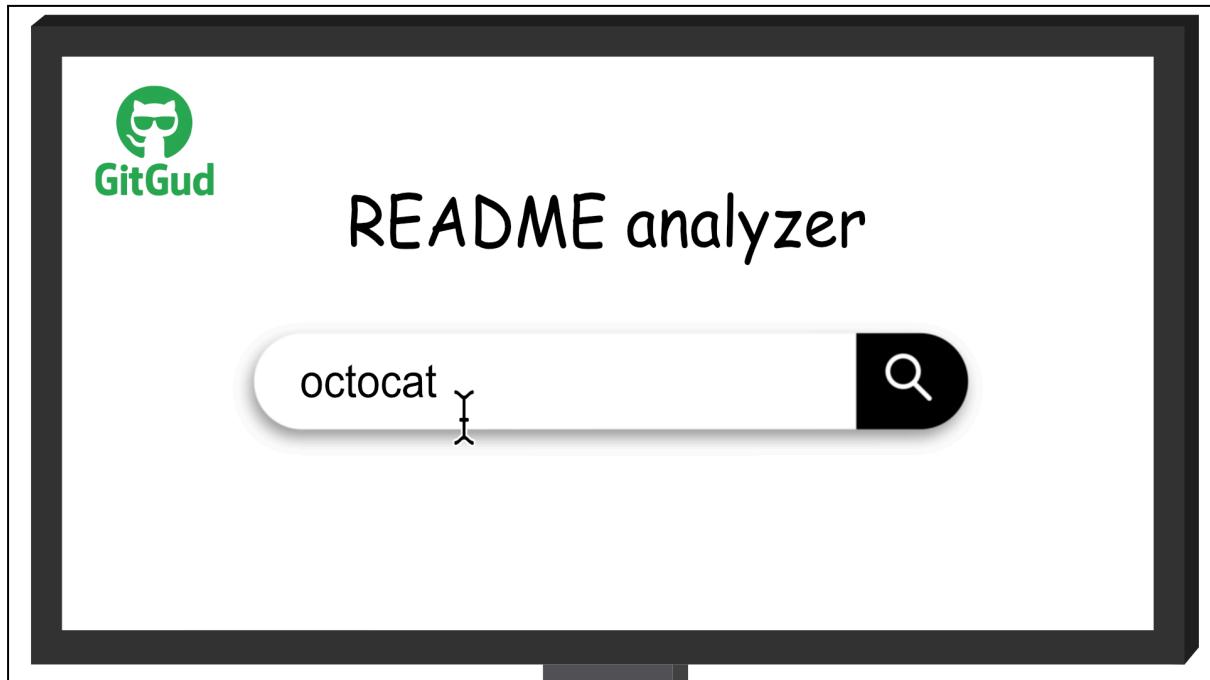
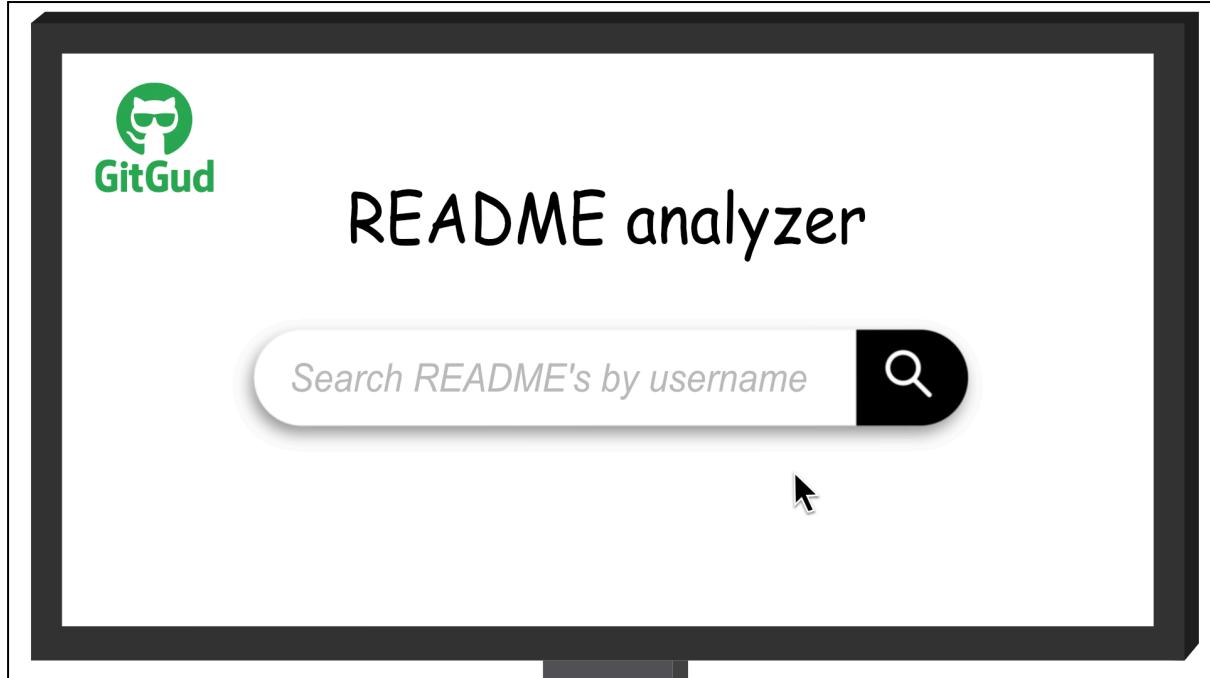












## Projects by octocat

<b>thing-doer</b> CLI tool that does things. Unclear which ones.	Public
<b>md-magic</b> AI-powered markdown wizardry. Summons README files from thin air.	Public
<b>chartsmith</b> A chaotic neutral charting library for people who believe vibes > accuracy.	Public
<b>git-stalk</b> Stalk GitHub profiles like it's 2012 Facebook. May cause ego damage.	Public

## chartsmith

A chaotic neutral charting library for people who believe vibes > accuracy.

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**install**  
just clone it idk

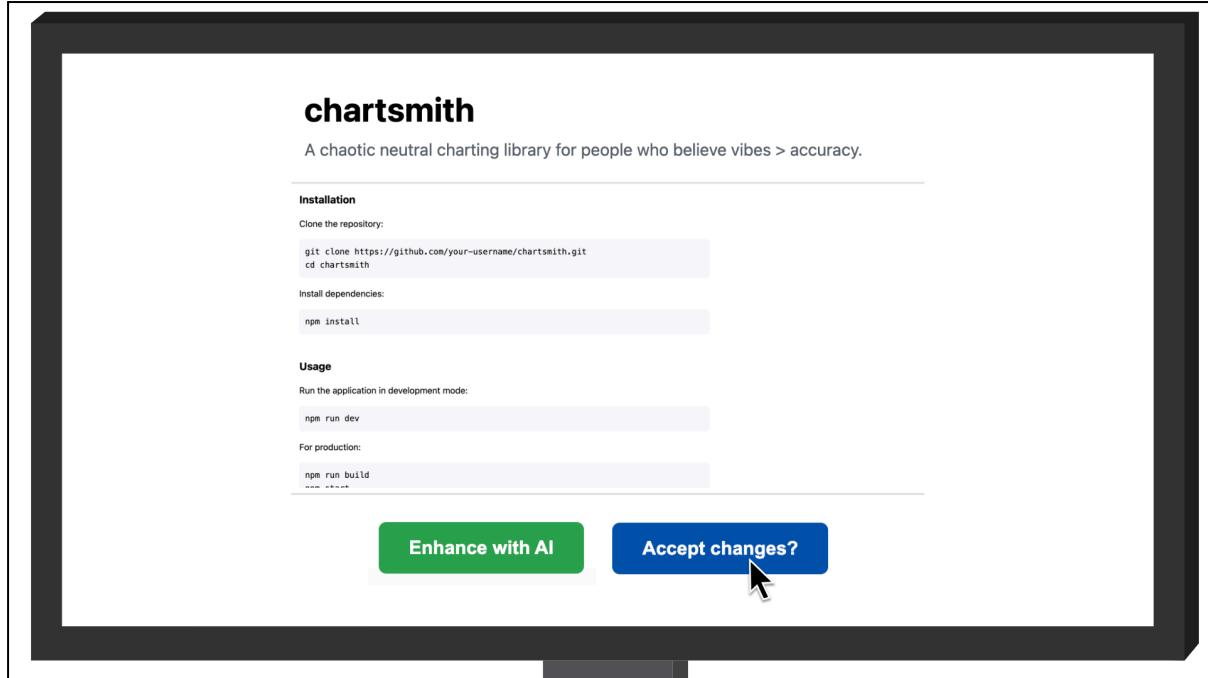
**usage**  
run it

**features**  
• chart?

**todo**  
stuff

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[Enhance with AI](#)





## GitHub Comparison Tool

GitHub username #1

GitHub username #2

**Compare**

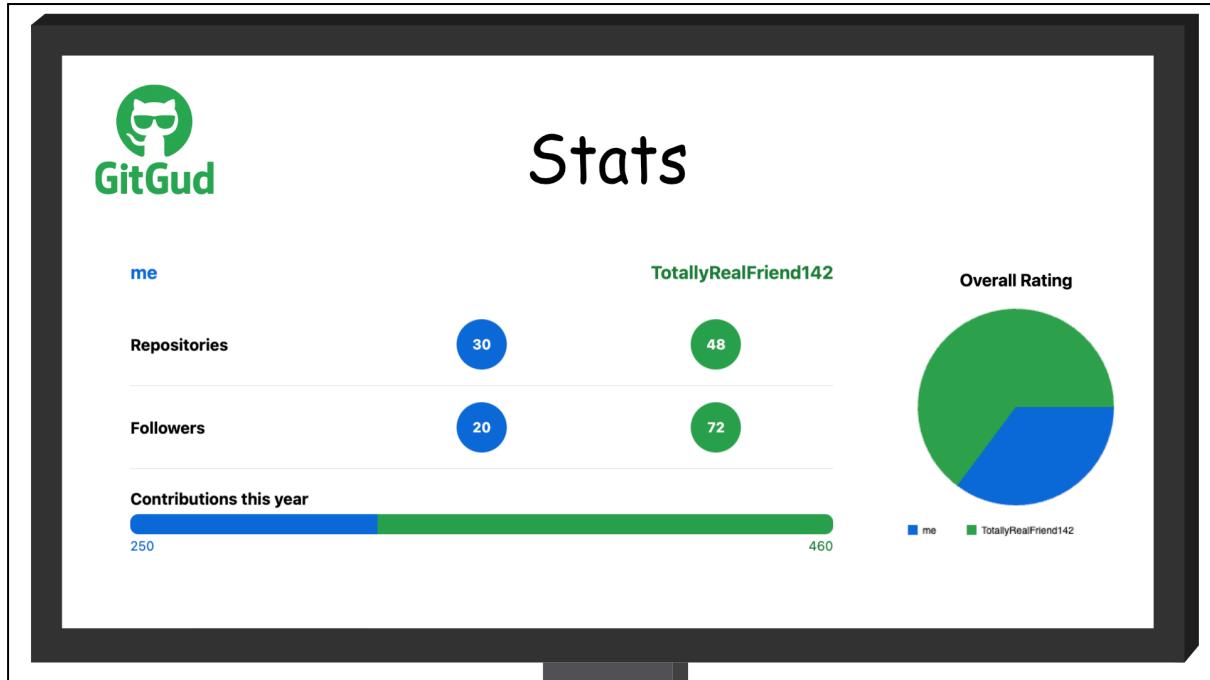


## GitHub Comparison Tool

Me

TotallyRealFriend142

**Compare**



## Tech stack

The tech stack we've chosen is **Next.js**, a React framework, and **Tailwind CSS**. Next.js offers several benefits that align well with our project goals. Its API routes help keep our codebase organized, readable, and maintainable. Additionally, its intuitive file-based routing system simplifies page navigation, allowing us to build and scale the application more efficiently. This framework also integrates seamlessly with Vercel, which will streamline our deployment process and ensure reliable hosting throughout development. Additionally, for styling, Tailwind CSS will be used to give full control over CSS while also making it faster to write. As for a component library, we have decided on Shadcn as our main component library. We chose it because of its ease of use and customization, both of which we value.