

Fall 2025 CS4530 Final Project: FakeStackOverflow

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Deployment Site: <https://cs4530-f25-512.onrender.com/>

GitHub Repository: <https://github.com/neu-cs4530/fall25-project-fall25-project-group-512>

Features:

The original FakeStackOverflow had little engagement beyond basic utility, being able to ask/answer questions, have basic chats and organize questions and users. Not only were users forgettable, they also couldn't verify themselves as legitimate answerers of questions. As a result, we decided to add profile customization, such as adding profile pictures and expertise tags to allow users to post their credibility while also giving users more freedom to express their personalities. We also added some verifications to ensure URLs, bios, and usernames were safe to use.

This is amplified by our new incentivization via badges and leaderboard rankings. Users who perform positive actions gain badges of ranks, and have their stats compared publicly with other users. Furthermore, streaks of activity are also recorded, allowing for continuous engagement rather than large, spontaneous drives of activity. The older version only had upvotes as a mark of positive action, so adding competition based on positive participation, users can have fun without losing the original vision of the project.

Finally, we added a follow feature that allows users to follow tags and authors to catch up on the latest questions and answers they care about. We also added a feed, with AI recommendations included, to serve users what they might be looking for when they want to find it. Even users who only see the site as a tool for occasional help will agree this will make it easier to get what they need, faster.

Technology & Stack:

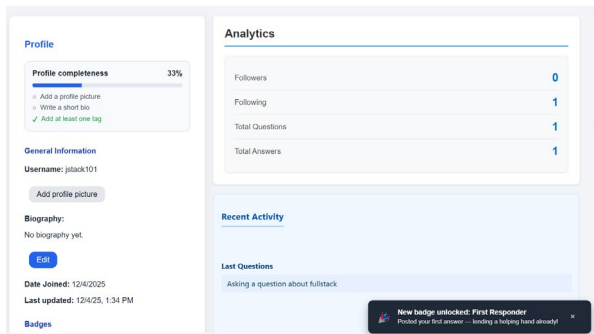
We used the original FakeStackOverflow codebase as our starter code.

- Profile Customization: We added Profile Images and Expertise Tags and Profile Activity and Analytics as the core features, We modified existing MongoDB schemas to accommodate new held information and added React Toast notifications for profile updates. All these sections are in the newly designed Profile page.
- Badges and Leaderboard: We used the same tech stack and design, along with new MongoDB schemas as Profile Customization to implement the reward systems, with a new page for leaderboard metrics. Badge earning also come with notifications and are customizable in the Profile page as well.
- Following and Feed: Our follow system used new schemas to track who follows what, and the non-AI feed sections use algorithms without external APIs. The AI section, however, uses Gorse to retrieve recommendations, deployed in a Docker container and in a separate MongoDB database.

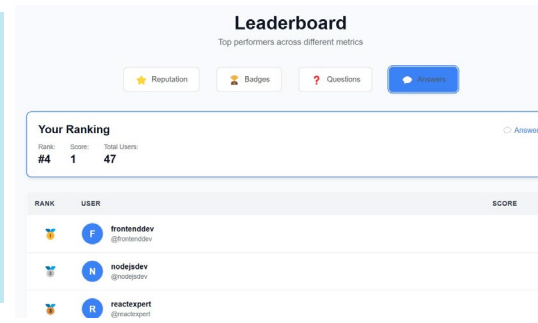
Future Work:

Given more time and budget, future work on this project may have included stricter security and moderation features, given our allowance of new inputs on the site, more in-depth feed recommendations based on long-term or site-wide trends (or paid AI APIs), and more exciting ways to engage and compete on the site, such as more games, or chat images.

Profile Page, with analytics, activity, and various customization options



Leaderboard Page, with rankings for all kinds of positive metrics



Feed Page, with question, user and tag suggestions, along with an AI section

