

## **Final Submission**

**A0180340U Rayner Lim Ri Han**

**Source on Github:** <https://github.com/rlrh/rails-react-todolist>

**Live Application on Heroku:** <https://rails-react-todolist.herokuapp.com/>

This is the first CRUD (not crud!) app I've ever done! So I'm feeling pretty proud of what I've achieved, though of course more can always be done. Before this, I had some experience with web development using Python Flask and plain Javascript to create a simple web app, but no experience with Ruby, Rails, databases and modern web development. Throughout last semester, I attended NUS Hackerschool's workshops on web development, learning React and Node.js along the way, so I was excited to put what I learnt into practice. However, I first had to spend a day learning the Ruby language and another day learning Rails and relational databases. Then I spent some time not doing any coding but just thinking about the design. Having read up on modern application design, I decided on a React frontend with Bootstrap styling together with a backend Rails API. I hoped that it wouldn't be too difficult to implement as it's somewhat different from Rails defaults, and fortunately it was not too much of a challenge. However, setting up the build tooling was more complicated than I thought it would be. After some trial and error, I got the first React component working and from there it was a breeze to construct the user interface. However, my unfamiliarity with Ruby and Rails slowed things down on the backend, requiring much Googling and reading up on documentation. Perhaps it was the "magic" of Rails that was hard for me to accept. The biggest challenge was implementing the tagging system. So I went "shopping" for Ruby gems and React components that would do what I needed. I first made the `acts_as_taggable_gem` work with the API before prettifying the UI with the React Tags input component. Once the foundations were laid out, it was relatively simple for me to add new features like the expandable input box and due dates for todos. Some things I wish to implement but have no idea how to are user draggable todos and user accounts, which I think would make the app much closer to a commercial one, and also testing and continuous integration. Nevertheless, I'm quite proud of what I managed to achieve with this project so far, and hopefully I will continue evolving it.