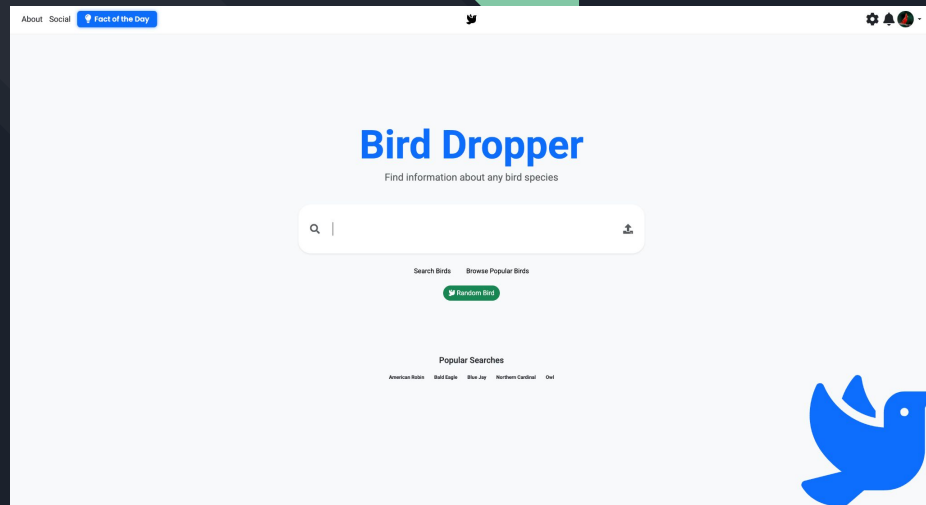# Bird Dropper

Jonathan Ro, Joshua Trujillo, Luke Maschoff, Aaron Beninghaus, Ben Blair
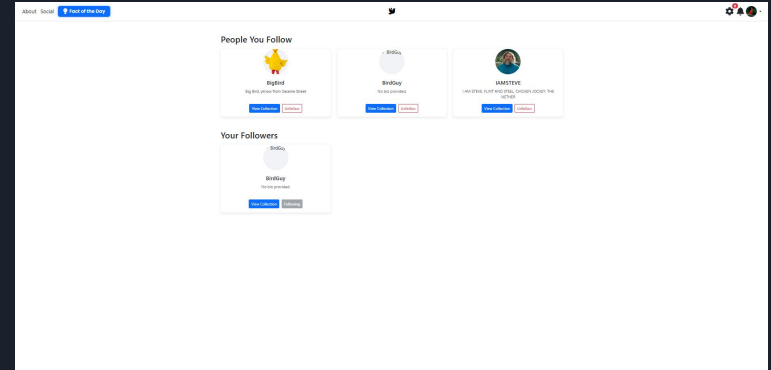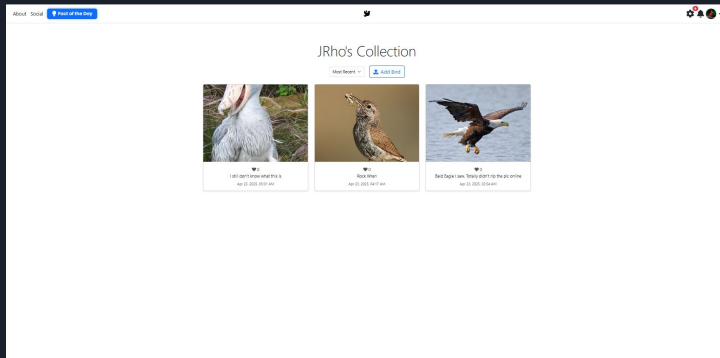
What is Bird Dropper

- Bird Dropper is an all in one solution for any avid bird watcher to track the birds they have spotted, search for information regarding birds they are curious about, and even find out information about a bird just from uploading an image if they don't know what the bird is called
- With Bird Dropper's social feature, users are also able to follow their friends and see what birds they have spotted as well, and are able to like and comment on users posts
- Users are able to create collections of birds, so if they are tracking a certain category, or if they are on a trip to a certain region, they are able to have a collection of these specific birds
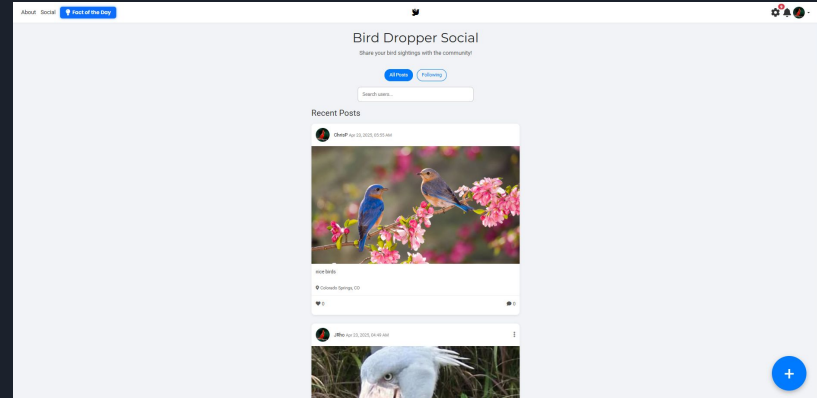
Development Toolkit and Approach

- GitHub (Version Control System) - used to manage source code, track changes, and collaborate. Was used for commits, branches, and pull requests
- PostgreSQL (database) - stored user accounts, posts, likes, comments, collections, and follows
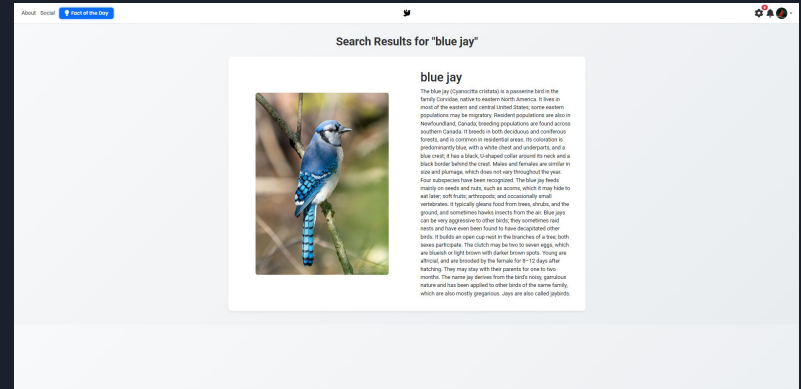
Development Toolkit and Approach 2

- VS Code (IDE) - used for writing and debugging the Node,js/Express application
- Handlebars (HBS/UI tools) - templating engine for rendering dynamic HTML pages (e.g: /profile, /social, and so on)
- Node.js + Express (Application Server) - Backend server handling HTTP requests, routing, and middleware
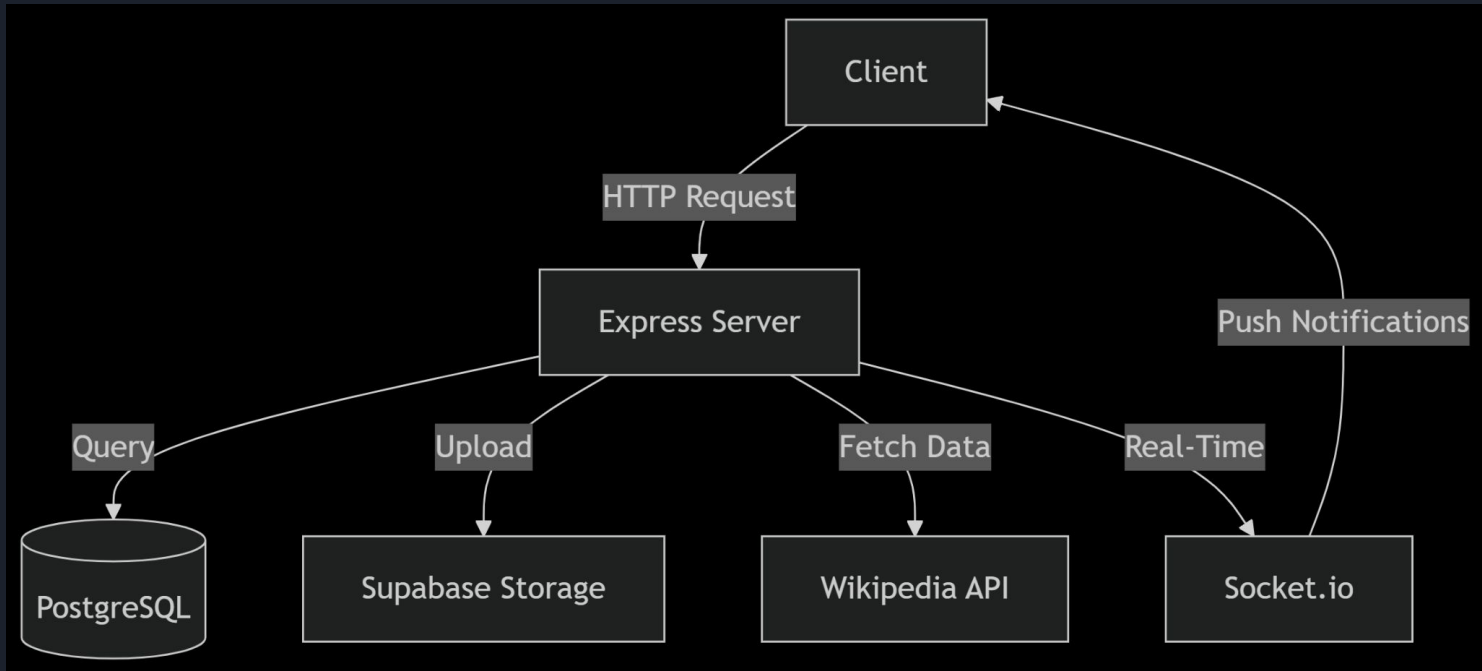- Render (Deployment Environment)

Development Toolkit and Approach 3

- Wikipedia API (External APIs) - fetches bird species data from wikipedia using scraping

- Google-Vision API - for image detection in web search

- Mocha + Chai (testing tools) - used for unit/integration testing

- Bcrypt - password hashing for security

Application Architecture

Core Features of Bird Dropper

- Bird Dropper allows users the ability to post their photos or findings of birds online and for others to view and comment on these posts
- Bird Dropper also has a feature that allows users to use a search bar to search for details about a certain bird species they are curious about
- On top of the search feature, Bird Dropper takes it one step further, and allows users to upload an image of a bird, and Bird Dropper will tell the user what kind of bird it is
- Additionally, Bird Dropper allows users to create collections of birds, so that they can be categorized to the users liking
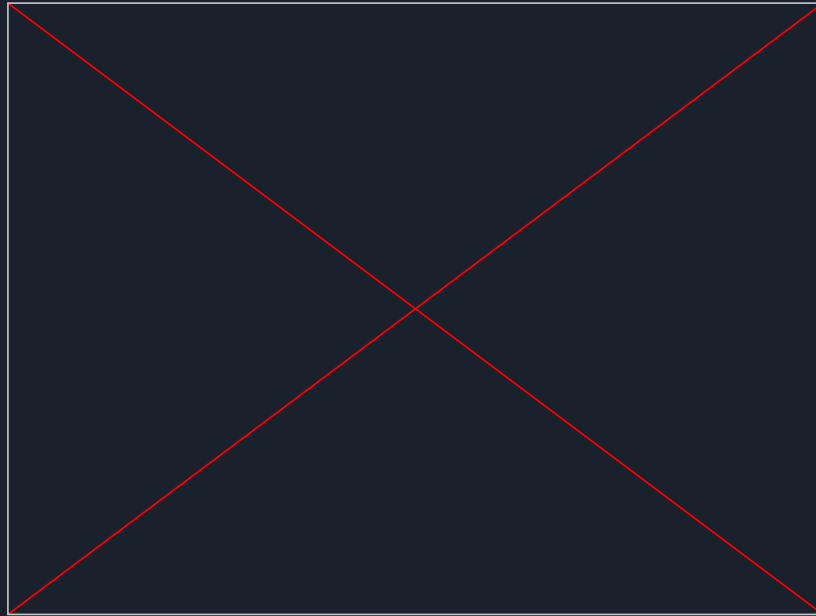
What Went Wrong (and How We Fixed It)

- A major issue we ran into during the development of Bird Dropper was figuring out how to upload an image and get back what kind of bird it was
- We decided to push this feature to the end of development, and circle back on it so that we could focus on the other main features and get them done first
- Once we finished the other features, we came back to the image upload feature, and were able to figure out how to use Google Vision API to solve our problem and add this feature to Bird Dropper

Live Demo

Where We'd Go From Here

- Create a map feature to show where you have seen birds in your collection
- Improve the social aspect of the app, and add more interactive features between users
- If we were to monetize our product, we would add a "Learn to Bird" course, where we have an embedded tutorial within Bird Dropper that teaches novices how to Bird

Q&A