Alex Bates

Capstone Presentation Outline

Copied from a markdown document.

# Intro - 0.5 to 1 minutes

- "Hello everyone! I am Alex Bates, a fullstack developer, and today I will be showing you Webbie"

- "Webbie is a javascript IDE that runs in your browser tab"

# Inspiration - 1 to 1.5 minutes

- So why did I make this?

- When I was preparing for this quarter thinking up ideas I knew I wanted to make something useful, and something unique. I didn't end up making that.

- The original plan was to make an AI React development tool, but GPT code isn't very trustworthy, so I kept adding more and more control to the user and less to GPT until I had reinvented the wheel and made an IDE

- As I realized this I decided to lean into it and downsize the importance of AI in my project

# Tech Stack - 1 to 1.5 minutes

- Webbie is made up of 2 primary APIs and 2 secondary APIs

- The primary APIs are both Python using fastapi, 1 for accounts, 1 for projects

- The secondary APIs are the GPT interface API and the Image Proxy API

- The image proxy was entirely made by GPT, and it exists because the page with the webContainer has to be cross origin isolated

# Project Overview 4-5 minutes

- Let's jump straight into the editor with one of the available templates, how about React?

- Here we can take a look at some features.

- First thing you'll notice is the IDE spinning up,

- This is powered by stackblitz webContainers, I wanted my capstone project to include new cutting edge technology to illustrate that I can keep up and teach myself more than the Neumont curriculum

- Lets do what the boilerplate asks and edit src/App.js

- We can use the file explorer over here on the left

- Double Click to open, and ctrl+s to save the changes

- This text editor is actually the Monaco editor, VS Code and every other web IDE uses it

- Now Copy that code and ask GPT to add a button that keeps track of click count

- Get response from GPT and use diff button to accept

- Some other smaller features I can quickly point out are:

- You can open the preview in a new tab

- You can download the project

- You can share the project

- You can view project dependencies and quickly navigate to their npm page

- You can open multiple tabs

- The Terminal is a full terminal

- \\*Open Project Config\*

- Over here is where we can configure some aspects of our project if it was actually ours

- There's standard name and description

- and the start command

- the project owner, the collaborators

- and whether the project is private or a template

- Lets hop over to a logged in account on the dashboard

- Over here is where you can view, create, and delete projects

- You can also view and edit your profile

- and see the profiles of those you follow

- Let's make a new project, this time lets do an express app

- Now that this is our project we can see that we now have a save icon in the top left

- This is different than saving a file, this is saving your entire project to the backend

- We can also now update our config

- An easy demo of this would be renaming main.js and then editing the start command accordingly

- This shows off rename, start command, and refreshing to reload the container

- If I want to show off multi-account features I can add a collaborator

- then sign in as collaborator, see the shared project, and follow the first account

# Post Project Clarity - 2 minutes

- As usual I over promised, and didn't follow my plans

- Halfway through this project I decided it would be better and more manageable if it were written in typescript, I will be converting it to typescript after some much needed rest

- Had a physical/mental health crisis 7 weeks in

- So many little features I want

- AI is contextually aware of dependencies and project name and dscription

- A button to ask GPT to refactor a component, instead of having to ask in the chat window

- Be able to move files and folders

- I want the preview pane to hide when there is no preview to be seen

- Themes are a stretch goal I had from the start

- Some big things I missed

- You can't use images from other domains in the embedded preview

- You can't upload files from your computer, fine for code, not fine for images

- I had 1 personal goal for this project and I feel I succeeded at it

- My goal was to prove that I could teach myself anything I needed

- Neumont did not teach me React, or Next.js, or fastapi, or gridFS, or pretty much any part of my project except for Docker

- The more important part of this goal was that I could teach myself the cutting edge technology that is too new to have community resources available, stack overflow or tutorials nearly at all

# Materials needed

- Just my capstone, I put most of my presentation visuals on my landing page, and I don't know what I really need to display other than my tech stack

# Practice Methods

- I plan to practice with some friends or just record myself alone

- I want to practice quite a bit, probably a few runs on the day of

- I want to practice in the actual room over the weekend as well