Uncertain Foot*notes*

By Kira Pan

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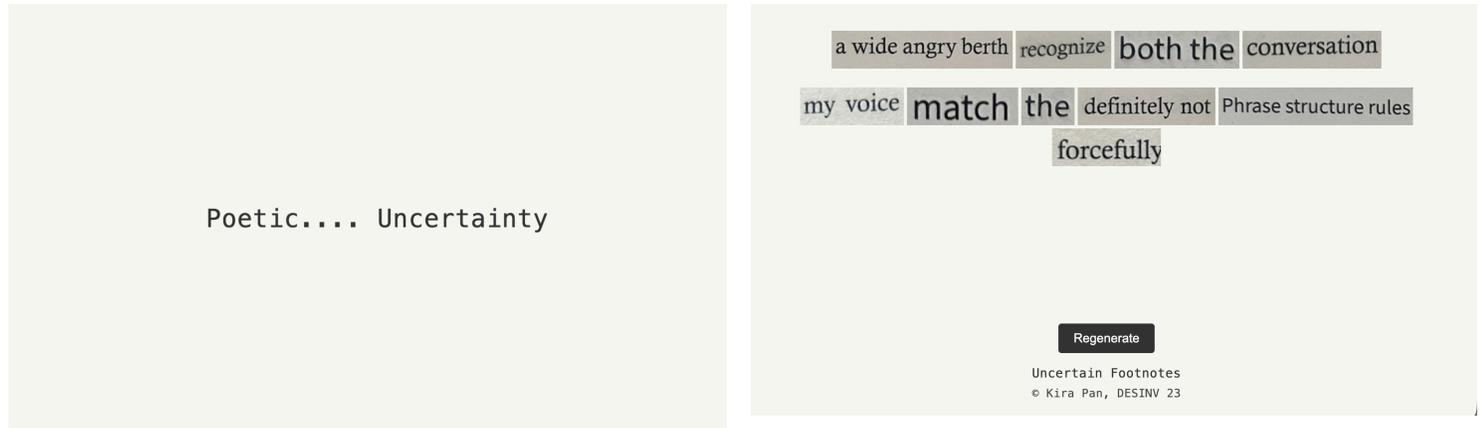the Phrase structure rules been talking it can be a languages

Regenerate

Uncertain Footnotes
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A generative sentence model utilizing traditional English syntax to create new phrases. The interface is intentionally simple to draw focus to the "Mad Libs" style generation and sounds associated with different parts of speech.

Showcase / Final Description of Finished Piece

Uncertain Footnotes is an interactive piece where you build sentences from various word cutouts. Each phrase is a small image taken from my documents: nouns, verbs, adjectives, prepositional phrases, and so on. The site combines them using English phrase-structure rules so that what you get is always syntactically valid by English syntax, but never fixed, so a new sentence forms with every iteration. You can click any phrase to swap it for another in the same grammatical slot or hit "Regenerate" to get a brand new sentence.
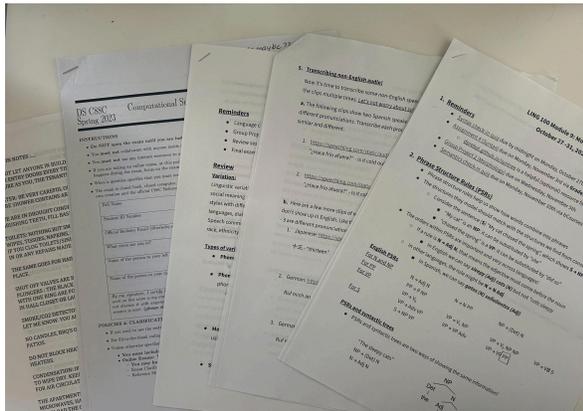
The title is a play on words: the results are uncertain because the combinations keep changing, and foot*notes* refer to the short sounds that play when you interact with a phrase, producing a different sound for nouns, verbs, adjectives, determiners, adverbs, etc. Those sounds act like little audio footnotes that tag each part of speech.

The grammar behind it comes from my linguistics class, where we learned English syntax and phrase structure. The generator uses rules like S → NP VP, and builds noun phrases (e.g. Det Adj N), verb phrases (e.g. V NP, Adv V), and prepositional phrases (Prep NP) the way we saw in class. Even though the mix is random, every sentence follows the same kind of structure we analyzed. The project is less about building a tool and more about turning that syntax into something you can hear and click: the word cutouts are the "text," and the sounds are the footnotes that remind you what grammatical role each piece is playing.
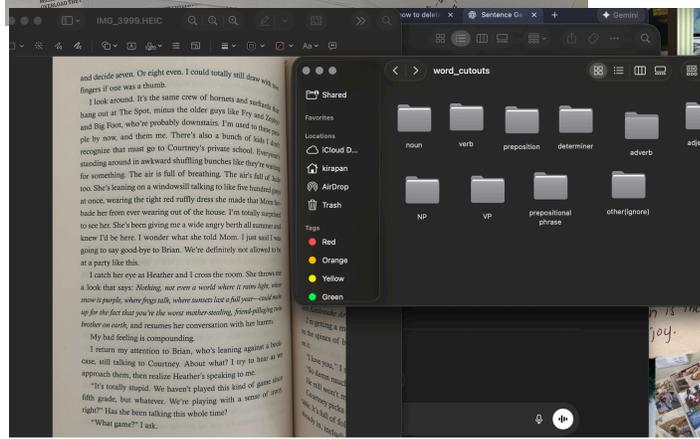
[Video Demonstration - Uncertain Footnotes](#)
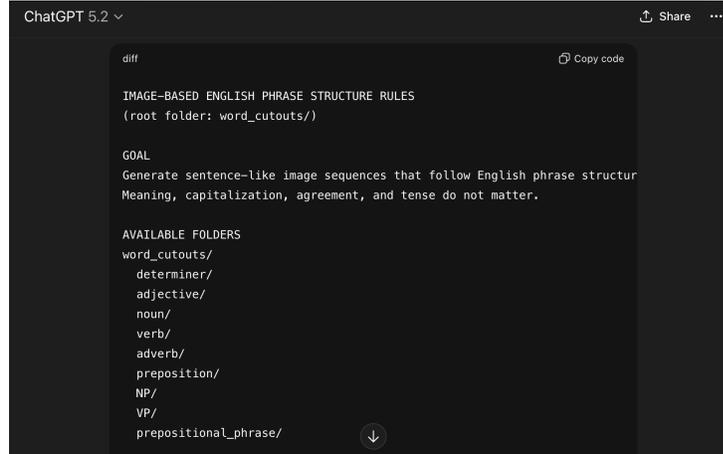
Process / Iterations

The inspiration for this piece was because of my interest in collaging from materials found at home and from when I took Introduction to Linguistics for my Cognitive Science requirement, where we dove into the syntax and sentence structure of English.

I collected documents around my apartment (mostly previous homework assignments and worksheets) and uploaded them to my computer. I selected phrases/words from the documents and categorized them into their parts of speeches.
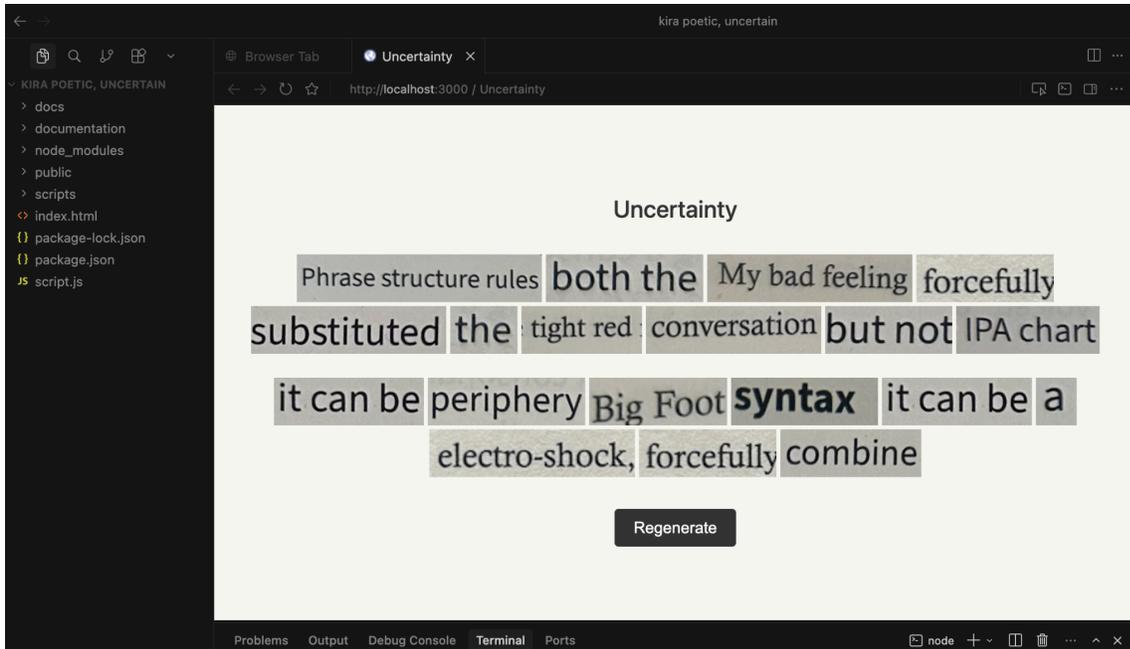

I created a new folder on my desktop to start organizing my content and various images to correspond with parts of speech.
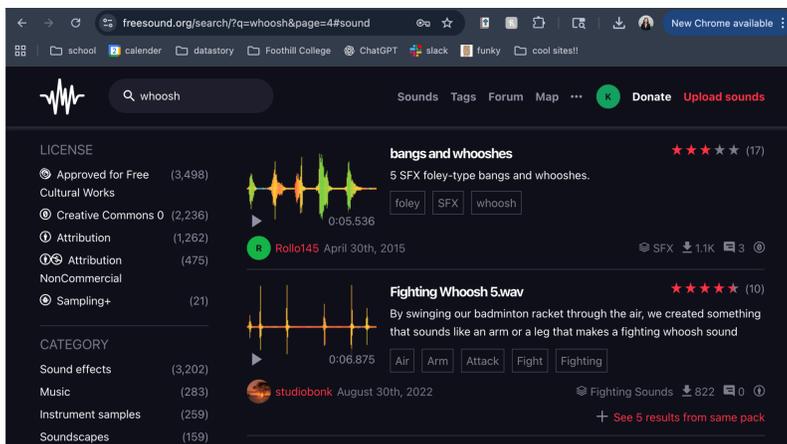

Based on my syntax worksheets from Linguistics and the folders I had set up, I had ChatGPT create English syntax rules so that the images of various phrases would generate something resembling traditional English, almost like Mad Libs.

The grammar rules can be found under /docs/grammar_rules.txt.

After a few iterations with Cursor, this is what the site looked like. At this point, the different phrases would be replaced by a word with the same part of speech on click, but I wanted to add a different interactive element to the page, so I turned to adding sound.

Using a free sound library, I downloaded the sounds I liked, and organized it in a folder on my desktop.

I then parsed through the sounds and assigned them to various parts of speeches.

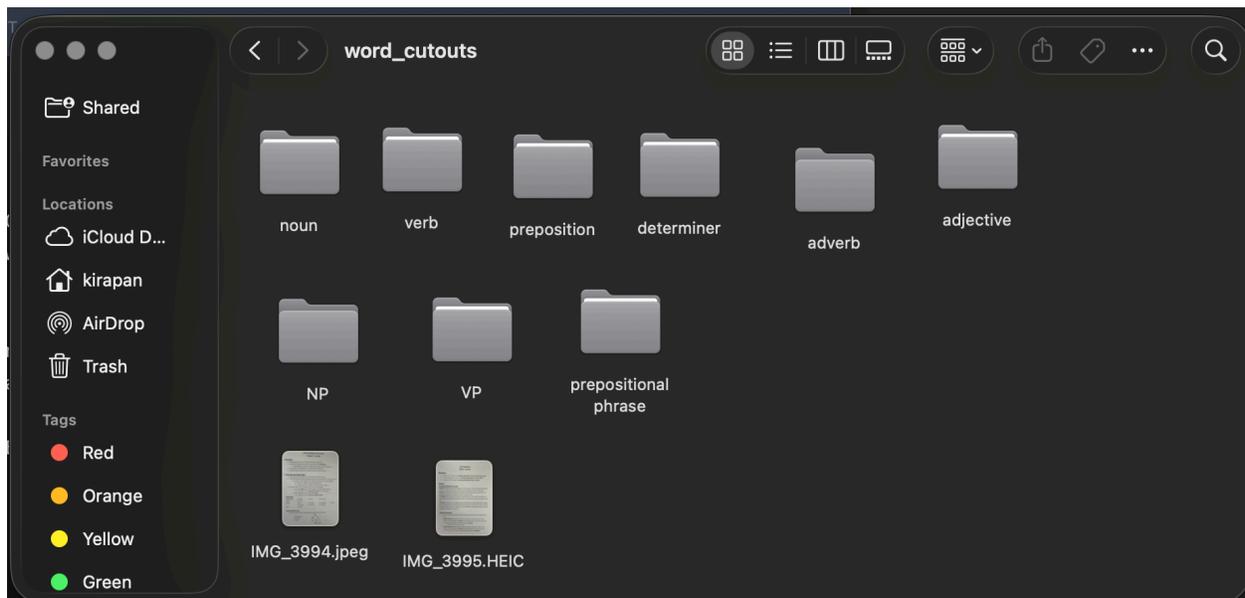| Part of speech	Sound file	Sound name
noun	pop_sound.mp3	pop
NP (noun phrase)	pop_sound.mp3	pop
verb	whoosh.wav	whoosh
VP (verb phrase)	whoosh.wav	whoosh
determiner	chime.wav	chime
preposition	chime.wav	chime
prepositional phrase	chime.wav	chime
adverb	minecraft.wav	minecraft
adjective	click.wav	click

These are the sound assignments I made to the parts of speeches.

Conclusion / Reflection

I had a lot of fun incorporating my different interests in linguistics, web design, and collaging with this piece. I enjoyed that the phrase snippets I used are all from my personal life, including homework assignments and class worksheets.

I knew from the beginning that I wanted something interactive and perhaps along the lines of sentence generation, but it was not until I started getting into building the site did I come up with different features upon clicking on a phrase, such as substituting it with the same part of speech and a sound associated with the part of speech. I also was not familiar with how to host a website on GitHub previously with GitHub pages, so it is nice to be able to use that as a resource for playing around with web design later on.

Looking forward, I would like to add more words/phrases into the site. Another fun thing to explore would be to add different sounds on click that correspond not only to the part of speech the phrase is, but also to the connotation or tone of a phrase.

Links

Code	https://github.com/kira-pan/uncertain-footnotes Site: kira-pan.github.io/uncertain-footnotes/
Final video	https://drive.google.com/file/d/1wZOGfFn80MAQHcXbz6zYyN2JXimzXcrT/view?usp=drive_link

Sources

Free Sound Library	https://freesound.org/