

Experience

Freelance work Software Developer React, TypeScript, SQLite, Remix, NodeJS *February 2024 - Current*

- Ongoing project for a client that uses a similar software stack to Clear Carbon Solutions
- Was able to provide a proof of concept quickly and secure the bag
- Signed an NDA

Clear Carbon Solutions Software Developer React, TypeScript, SQLite, Remix, Cloudflare Workers / D2 *November 2023 - Current*

- Sole developer for our concept project, Clear Carbon - 'turbo tax' for business and municipal carbon output
- Full stack, utilizing React / Remix for a performant and seamless frontend-to-backend integration
- Leverages drizzle and zod for type safety from the database schema to frontend form validation, significantly increasing the rate of development by eliminating classes of bugs
- Iterated through multiple other frameworks and libraries (Flask, Jinja, FastAPI, Strawberry, GraphQL), mostly as a learning experience but also to find an optimal stack for production and maintainability.
- Played a key role in design of the product itself

Stokes, Avalon Mall Third Key *June 2022 - Current*

- Responsible for management duties and maintaining our status of excellence in customer service
- Creating a unique atmosphere by sparking personal connections with our clientell

Education

Memorial University of Newfoundland

St. John's, Newfoundland, Canada
Bachelor of Science - Computer Science
2017 - Present

Projects

gavinpower.dev Personal Website *Astro, MDX, React*

- My homepage on the internet
-

wii stuff Tools for processing the binary image container format used on the Nintendo Wii *C, WebAssembly, Hex Editor*

- Renders .TPL images natively in a web browser, written in C with portability in mind.
- Support for most platforms using the SDL2 library for output, such as the Nintendo Switch.
- Planned support with some progress for animations and sound

tama ttv Twitch Plays: Tamagotchi *Python, CircuitPython, Flask, Arduino, Soldering Iron*

- An immortalized Tamagotchi, a key item from my childhood, who now lives on Twitch and is taken care of by chat.
- Listens to chat messages using a barebones IRC library written in python, with ratelimiting support using a token bucket algorithm.
- Uses HTTP post requests to fire off commands to an LG G6, which then talks to the arduino over a serial connection
- The arduino facilitates button presses on the Tamagotchi by listening for commands then pulling the corresponding pads on the Tamagotchi PCB to ground.
- Supports high quality sound via a hacked in headphone jack
- The evolution of this project can be found on my [homepage](<https://gavinpower.dev>)