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Work Experience

Software Developer

Slate: College Admissions CRM

Technolutions

New Haven, CT

Feb 2022 – Apr 2024

- Built a feature called 'Express Portals' which lets users build mobile app accessible microsites for any event they setup.
- Instructed a front-end intern through successfully creating an interactive SVG map with clickable areas that display informative content via a modal.
- Contributed 7% of Slate's total integration tests and unit tests.
- Counseled technical engineers through pair programming, code review, and risk analysis on proposed decisions.

Software Developer

Develomark

Plantsville, CT

Oct 2019 – May 2021

- Designed and developed a search engine to introduce searchability for our client websites. Pages are ranked by keyword, previous searches shown as suggestions, spelling corrections implemented using Levenshtein distance, and result snippets are extracted from indexed paragraphs with high keyword density.
- Built an employee task logging chrome extension which logs to Google Sheets after identifying task compilation as a bottleneck in our client reporting process.

Projects

Hammer Plus Discord Bot

Rust, SQLite, Batch

Mar 2024 – Apr 2024

- Built a Discord bot which lets users fetch Pokemon data (types, stats, abilities, etc) from a SQLite database.
- Wrote tools to extract data from an existing database-less JavaScript system to import into a database I had architected.

Big Data Mailing Analytics

SQL Server

Technolutions

Feb 2024 – Mar 2024

- Working with the innovation team, I built SQL scripts to run statistics and classify the effectiveness of an email by its subject line and timing.
- Leveraged data from 1800+ databases and helped identify key data points such as usage of emojis, click rate within first hour, and click rates on specific days.

Minecraft Mod Dev. Env.

Docker, SSH, Batch

Nov 2023 – Dec 2023

- Composed a Minecraft mod development environment consisting of three Docker containers: Development environment (adjustable Java version), Minecraft Server (adjustable Minecraft version), and a build volume.
- Built a batch tool that automatically installs your mod into Minecraft and runs a Gradle build.

Badge Paper Ordering System

C#, T-SQL, XSLT, JS, CSS, HTML

Technolutions

Mar 2023 – Apr 2023

- Introduced an order confirmation system into Slate and implemented it to collect payments for badge paper orders.
- Processed over 100k USD worth of transactions.

Express Portals	C#, T-SQL, XSLT, JS, CSS, HTML <i>Technolutions</i>	Apr 2022 – Mar 2022
<ul style="list-style-type: none"> • Rebuilt the UI of an existing feature to allow end-users to build mobile accessible microsites for events in Slate. • Followed the 80/20 rule to only include features useful at least 80% of the time, leading to a simplified experience that uses 64% fewer network calls on average to reach the same outcome compared to regular 'Portals'. 		
Glorious Scraper	PHP 7.4, MySQL, WordPress, JS <i>Glorious Recovery (Non-profit)</i>	Feb 2022 – May 2022
<ul style="list-style-type: none"> • I built the scraping algorithm, third-party calendar import/export, logging, and UI/UX for a WordPress widget which scrapes Facebook event pages for information to add to a third-party calendar widget. • Identified and implemented a rotating IP address workaround in response to being blocked by Facebook. 		
Volunteer Management System	Next.js, Tailwind CSS, Firebase <i>Kevin's Community Center (Non-profit)</i>	Oct 2021 – Dec 2021
<ul style="list-style-type: none"> • I built the event CRUD operations, event UI/UX, and job timeslot conflict management system for the CRM that my group had created for KCC. • This CRM allows volunteers to sign up for events created by KCC, then admins can generate reports based on the engagement from volunteers for writing grants. 		
Discord Racing Bot	Java, Gradle, MongoDB <i>CCSU</i>	Oct 2021 – Dec 2021
<ul style="list-style-type: none"> • Discord bot which lets users shop for cars + parts, build cars, race, earn credits, and level up their drivers' skill. • I developed the race registration queue, step-by-step race algorithm, garage management, car building, track generation, and driver skill systems. 		
Nantucket Sunset	Three.js, WebGL, Blender	Aug 2021 – Sep 2021
<ul style="list-style-type: none"> • I fully 3D modeled and created a Three.js scene set on a Nantucket dock, overlooking the ocean into the sunset. • Optimized runtime performance by baking illumination and kept the entire scene small at 7.22 Mb. • Initially used ray casting to allow you to click islands on the map to access different pages of my website. 		
Planetary Doom	C#, Unity, Photoshop <i>CCSU</i>	Jun 2021 – Jul 2021
<ul style="list-style-type: none"> • Worked with three other developers to create a 2D planet defense game where you're a ship defending Earth from waves of alien starships and asteroids. • I built the final boss fight sequence, sprite, and animations as well as the games upgrade system, upgrade sprites, and accuracy & shield systems. 		
Security Forum	PHP 8, MySQL, JS, CSS, HTML <i>CCSU</i>	Feb 2021 – Apr 2021
<ul style="list-style-type: none"> • I built a fully functional forum themed around security, including account registration & login, the ability to create a thread, then post within that thread. • Followed OWASP's Top Ten list which led me to implement rate limiting for logins and sanitizing all input sources. 		
Client Task Logger (C-log)	PHP 8, Google Sheets API, JS <i>Develomark</i>	Nov 2020 – March 2021
<ul style="list-style-type: none"> • After I had identified that tracking completed tasks was a bottleneck in our reporting process, I gathered input and requirements from the team and built a task logging chrome extension which logs completed tasks to Google Sheets. • Once the extension was adopted, we gained observability across the team and observed client reports being created 10% faster than before. 		

Duda Search Engine

PHP 8, MySQL, JS, CSS, HTML

Nov 2020 – March 2021

Develomark

- I built a search engine which identifies and extracts meaningful content page by page as it crawls a website, then ranks each page based on keywords within a users' search query.
- Upon search, results are displayed with snippets created from paragraphs containing relevant keywords.
- Using the website's own words, a custom dictionary is built to offer efficient spell-checking and accurate suggestions.

Sudoku Generator

Java, JavaFX

Mar 2020 – May 2020

CCSU

- I built a Sudoku generator which implements backtracking along with decision trees to generate valid sudoku boards.
- The algorithm first builds a fully solved board, then erases cells. This allowed me to add adjustable difficulty by controlling how many cells were removed.

Education

Computer Science Honors

Central Connecticut State University

Aug 2018 – May 2022

Bachelor's Degree | GPA 3.96

New Britain, CT

Technologies and Languages

Languages

C#, Java, JavaScript, PHP, SQL | Learning Rust, Go, Kotlin

Technologies

Git, SQL Server, MySQL, SQLite, AWS, Firebase, Android Studio, Figma, Photoshop

Other

Design Patterns, Data Structures and Algorithms