

CONNOR BARKER

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Experience

Software Developer | UWaterloo Portal Team

January - April 2018

- Developed an MVC ASP.NET analytics application to display usage data, designing the frontend and backend components from scratch using JavaScript, C#, and SQL, Bootstrap, and Ionic, as well as TFS and Confluence for versioning
- Responsible for the visual design redesign of the student/staff views in the new CECA paging system, as well as adding new backend functionality such as editing interview times and messaging students, using AngularJS, C#, and SQL
- Attended weekly Agile SCRUM meetings and monthly sprint planning meetings, where the team used storyboarding to create a list of tasks, allocated to team members using Jira tickets

Projects

ASCIIfy

JavaScript, jQuery, HTML, macOS, Bash, Git, Chrome platform

- Chrome extension which makes use of jQuery to search for images on a webpage and convert them into ASCII art
- Parses pixel data and finds average color values, assigning them to ASCII characters and putting them onto the page
- Circumvents cross-origin security restrictions by recreating the images locally, then manually setting their origins

lazOrbOi

C++, MIPS, Linux (Ubuntu), Omega2 (microcontroller), Bash, SSH, VirtualBox

- Integrated system which converts user input into a visual laser display with motors and mirrors, projected on a wall
- Wrote a custom CLI using C++, compiled for MIPS using a virtual machine running Linux, to control the motors
- Program continuously accepts user input, processes it, and converts it to GPIO output using an algorithm

totallynotspaceinvaders

Python3, pygame, macOS, Bash, Git

- Recreated the classic game Space Invaders using Python3 and pygame, with custom pixel-art graphics
- Used functional and modular programming principles in the design process, maintaining an organized codebase
- Added a long-term storage solution for saving high scores, by reading and writing to files on the host machine
- Includes features such as lives tracker, random starmap as a background, increasing difficulty by level, and more

Sentiment

TypeScript, SASS, Firebase, AngularJS 2, SHA-1, macOS, Bash, Git

- Web app for leaving people notes, which implements Firebase for storage and AngularJS as a framework
- Developed custom security system using long-term password storage and SHA-1 encoding to encrypt the passwords
- Designed frontend using SASS and Material Design concepts, hosted permanently as a Firebase app

Education

University of Waterloo

Candidate for Bachelor Of Applied Science in Honours Computer Engineering
Expected 2022 • Waterloo, ON

Ecole Jeannine Manuel

Achieved a final score of 40 points on the International Baccalaureate (IB)
Graduated 2017 • Lille, France