Jacob Smellie

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Objective

I am looking for a full-time software development position where I can use my skills to implement, improve, and maintain programs/applications and further develop my technical skills.

Education

University of Michigan, Ann Arbor   **B.S. in Computer Science (April 2019)**

Minor in Asian Studies(Japanese)

Relevant coursework:

Data Structures and Algorithms, Operating Systems, Computer Security, UI, Intro to AI, Game Design and Development

Skills

- Languages: C#/.NET, C++, C, Python, Javascript, Node.js, SQLite
- Tools & Skills: Unity Game Engine, Linux, Team Foundations Servers, Git

Relevant Employment History

Quicken Loans Software Development Intern*(C#/.NET)*   **May 2018-August 2018**

- Implemented a system within our team's version control to select files and directories to not include when updating. It would generate a regular expression based on the ignore file and breadth-first search all the child directories of where the ignore was held, generating a list of all files to include in the update. This allowed users to generate specific sets of files for better testing of the system and improved usage.
- Manipulated bounding box information, using rotation, reflection, and translation information output by the OCR system, to correct for disparity between stored data and OCR output, to be able to accurately display bounding boxes of documents, allowing for easier recognition of errors in templates and reading.
- Wrote unit tests for various sections of code, that resulted in increasing code coverage by over 10%.
- Experience working in Agile sprints, working with version control(Team Foundation Servers), completing code reviews, as well as responding to suggestions from peer code review.

Project Experience

Game Development *(C#/Unity Game Engine)*   **September 2016-Present**

- Created various games, working in multidisciplinary teams to develop a polished end product.
- Wrote scripts utilizing many of Unity's native systems including, Terrain Engine, NavMesh, and Particle System to implement custom mechanics.
- Implemented simple design patterns such as observer pattern, for things such as audio managers or particle playing, and singleton patterrn to manage game state across varying levels and scenes.
- Scripted various systems including menus, enemy patterns, movement, map generation, item interaction, start and end sequences, using C#.
- Worked on a long term project over the course of 10 weeks. During this time we responded to user feedback to improve the experience and regularly met to plan out sprints for the coming weeks.

Board Game Discord Bot*(Node.js, SQLite)*   **March 2020**

- Created a database to store information about what board games people own to allow for users to query the information and request specific games for meetups through the bot.

FIRST Robotics(*Java)*   **September 2012- June 2015**