AREN TAYLAN

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EDUCATION

The University of Texas at Dallas May 2020
B.S., Computer Science

SKILLS

Languages: C++, Java, C#, GML, Unity
Frameworks/OS: OpenGL, Git, LWJGL, Windows
Software: Unity, Visual Studio, Jenkins, Unreal, Game Maker, Blender, Adobe Photoshop, TeamForge, Asana, Selenium, Git/GitHub, SVN
Relevant Coursework: Data Structures and Algorithms, Discrete Mathematics, Computer Architecture, Artificial Intelligence, Database Systems, Automata Theory

EXPERIENCE

Rice Games - Gameplay Programmer June 2019 - November 2019

- Developed UI and AI mechanisms for *Shujinkou*, an independent game, using Unity and C#
- Utilized Git for version control to promote efficiency and strengthen redundancy
- Engaged in an Agile development cycle, bi-weekly meetings, and code reviews

Texas Education Agency - Software Engineer Intern June 2019 - August 2019

- Developed 50 Java-based Selenium regression testing algorithms for the Texas Education Agency's eGrants and FSA systems
- Attended SCRUM meetings and utilized Jenkins and TeamForge on 4 different projects to coordinate work
- Used SVN version control to streamline productivity and increase communication

NOTABLE PROJECTS

ROMP, Unity, C#

- Chillenium 2019 Submission | https://rpgwaker.itch.io/romp
- Designed and implemented various features including camera and player movement, game functionality and game physics

Knowledge Base Solver, Python 3

- Created artificial intelligence that draws conclusions based on saved knowledge base

Pac-Man CTF AI, Python 2

- Designed two artificially intelligent agents to play a competitive "Capture The Flag" game of Pac-Game, earning a 70% win-rate against other agents.

Backtracking CSP Solver, Python 3

- Developed an algorithm to solve constraint satisfaction problems given a set of constraints.

Forward Kinematics Arm, C++/OpenGL

- Utilized OpenGL to dynamically animate 3 joints of an arm using forward kinematics equations

Memory Editor Assistance, C++, Personal Project

- Developed a program to analyze and edit long lists of hexadecimal data in order to make modifying the ROM data of the Nintendo 64 game *The Legend of Zelda: Ocarina of Time* more efficient.

3D Terrain Generator, Java, OpenGL, Personal Project

- Utilizing OpenGL and LWJGL libraries in Java, designed an engine that renders a 3D terrain based off a terrain map image file.

Knowledge Base Solver, Python 3

- Calculates up to 14,000+ lines of clausal form logic in under 10 minutes using artificial intelligence.