DAN SINGER
SOFTWARE ENGINEER

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Committed, highly-motivated software engineer. Fourth-year student at the Rochester Institute of Technology seeking full-time software engineering position beginning in the summer of 2020.

Skills

PROGRAMMING
C++
C#
Java
Python

WEB DEVELOPMENT
HTML
CSS
JavaScript
Pixi.js
Three.js
Node.js
React

GAME DEVELOPMENT
Unity
Unreal Engine 4
MonoGame
SFML
Box2D
3D Modeling
OpenGL

OTHER
Git
Audio Production
Adobe Suite
Jira
Perforce HelixCore

Education

Rochester Institute of Technology — Aug. 2016 to May 2020
BS Game Design & Development 2020
Cumulative GPA: 3.95
Minor: Music and Technology

Employment

Oxide Games — Timonium, Maryland
Gameplay Engineering Intern — May 2019 to Aug. 2019
- Worked on an unannounced AAA title for a first party publisher on a 30+ member team.
- Programmed new gameplay systems and contributed to existing ones with direction from game designers.

American Greetings — Cleveland, OH
Interactive Developer Intern — Jan. 2018 to Aug. 2018
- Developed eCard games using HTML, CSS, JavaScript, TypeScript, and various JavaScript frameworks such as Pixi.js, Three.js, and GSAP.
- Played key programming role in two Hidden Object Game eCards which are now in production.
- Wrote code that was focused on performance optimization and tool development.
- Took part in code reviews and used Jira for project management.
- Worked with other members of the Digital Product Development team and with the art and creative teams.
- Solo developer for research project regarding a new application format using Unity, C#, and C++.

Absentia Virtual Reality Private limited — Pittsburgh, PA
Game Tools / Gameplay Programmer — May 2017 to Aug. 2017
- Developed tools in Unity to speed up and make the game development and animation process easier.
- C# Gameplay Programmer for large-scale Unity project.
- Worked on solo projects and in 2-6 member teams.

Aewtbe — Pittsburgh, PA
Lead Game Programmer — June 2016 to Dec. 2016
- Developed a 2D platformer which featured swimming, shooting, and tank-driving with C# and Unity.
- Worked with client to integrate his design choices as well as art and audio from other freelancers.

Projects

Dark — Oct. 2018 to Oct. 2018
- Solo developer of a procedurally-generated horror tech-demo.
- Developed with Unreal Engine 4 and C++.
- Implemented backtracking/depth-first-traversal algorithm to generate random 3D mazes.
- Incorporated horror aesthetic and an escape mechanic around the random mazes.

Space Voyager — Nov. 2017 to Dec. 2017
- Solo developer for a web-based space shooter featuring an open-level environment.
- Built with HTML, CSS, JavaScript, and the Pixi.js renderer.
- Designed and implemented robust, object-oriented architecture.
- Composed original soundtrack.

Autonomous Agent Simulation — Nov. 2017 to Dec. 2017
- Solo developer for a fantasy environment with agents that move and behave in believable ways.
- Studied and implemented Craig Reynold's steering algorithms, such as path following, wandering, and flocking.
- Implemented custom collision detection in the Unity engine.

Automaestro — Feb. 2017 to Apr. 2017
- Developed music application with Unity and C# that allows anyone to play music on a virtual piano without worrying about playing the correct notes.
- Designed and implemented project architecture.
- Published to Windows Store and implemented in-app purchases.

Awards

HeroJam · Best Overall Game — Apr. 2017
- Developed FPS: Finite Platform Shooter on a two-person team with C# and Unity. This is a first person puzzle game where the player must place platforms to reach the goal.
- Lead programmer for the game.
- Composed the game's soundtrack.

Upwork · Top Rated Freelancer — July 2017
- Awarded Top Rated status on Upwork for delivering consistent, polished results to clients for game development jobs.

Activities

RIT Swing Dance Club · Member — Jan. 2017 to Current
Member of the RIT Swing Dance Club, an environment where students instruct other students on swing dancing techniques.

RIT Jazz Ensemble · Section Leader — Jan. 2017 to Current
Member and lead instrumentalist for RIT's top jazz ensemble. Play the tenor saxophone in this ensemble.