

# DAN SINGER

## SOFTWARE ENGINEER

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Committed, highly-motivated software engineer. On the side, enjoys playing, creating, and composing music. Third-year student at the Rochester Institute of Technology seeking a co-op for the summer of 2019.

## Skills

### PROGRAMMING

C++  
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

### OTHER

Git  
Audio Production  
Adobe Suite  
Jira

## Education

Rochester Institute of Technology  
BS Game Design & Development 2020  
Cumulative GPA: 3.95

## Employment

### American Greetings

Interactive Developer

Cleveland, OH  
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

Game Tools / Gameplay Programmer

Pittsburgh, PA  
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

Lead Game Programmer

Pittsburgh, PA  
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.

### Lergent Developers

Lead Game Programmer

Pittsburgh, PA  
Nov. 2015 to Mar. 2016

- Developed an educational training game in Unity.
- Ported the educational training game to the web with the help of BabylonJS to achieve better performance.

## 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 rendering engine.
- Used Git for version control.
- 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 that allows anyone to play music on a virtual piano without worrying about playing the correct notes.
- Published to Windows Store.
- Initially developed in a group of three at a 24 hour hackathon, and was a primary programmer for the application framework in Unity and C#.
- Solo developer on the project after the hackathon - coded, developed, and expanded the application and converted it to a UWP app.

## 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.
- Composed music for the game with FL Studio.
- Lead programmer for the game.

### 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 ClubMember

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.