

# Nicolas San Jose

nsanjose.com | n.sanjose@digipen.edu | 907-230-1939

## Technical Skills

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**Programming Languages:** C/C++, C#, Python, HTML, CSS, JS

**Graphics Programming:** DirectX 11, HLSL, Visual Studio Graphics Diagnostics

**Engine and Tools:** Unity 5+, Unreal Engine 4, Esri CityEngine

**Environment:** Visual Studio Community/Code, ConEmu, Git, Sourcetree

## Professional Experience

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### Game Developer Co-Op

Aug 2018 - Dec 2018

Second Avenue Learning

Rochester, NY

- Ported 'The Original Mobile Games' (TOMG) to the Nintendo Switch platform
- Updates, optimizations, and bug fixes for 'TOMG' on the Android and iOS platforms
- 'TOMG' won a silver medal in the Serious Play Conference

### GeoGame Developer Co-Op

May 2018 - Aug 2018

Rochester Institute of Technology

Rochester, NY

- Programmed a quest manager for timed navigation objectives, with increasing difficulty of verbal instruction.
- Programmed linear dialogue and checkpoint systems.
- Programmed user interface for the map view, land-marker, and quest log systems.
- Integrated real geospatial data in the reconstruction of Dickinson, Texas in the aftermath of Hurricane Harvey.
- Researched Mapbox and CityEngine's appropriateness as a tool for integrating geospatial data in this project.
- Worked with National Science Foundation (NSF) Research Experience for Undergraduate students and other geogame developers on 'Project Lily Pad', a serious geogame for improving spatial thinking in disaster resilience

## Student Projects

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### Ori Engine

Nov 2017 - Feb 2018

is a space for exploring rendering techniques and game engine development.

was made using C++, DirectX 11, and HLSL, as a personal project.

- Deferred shading pipeline with normal buffer encoding and position reconstruction
- Physically based rendering, cascaded shadow mapping, soft shadowing, and screen space ambient occlusion
- Post-processing: bloom, eye adaptive exposure, and tone mapping for high dynamic range

### Escape Roswell

Mar 2016 - May 2016

is a procedural endless-runner game for virtual reality with an Oculus Rift.

was made using C#, Unity, and Oculus SDK, in a team of four.

- Programmed player controls, ship shields, ship fuel drain and pickups.

### The Adventures of Rob & Ots

Oct 2015 - Dec 2015

is a 2.5D, online, cooperative, puzzle-platformer game.

was made using C# and Unity, in a team of four.

- Programmed camera controls, ping communications, sprint effect, and character selection.

## Education

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### Master of Science in Computer Science

DigiPen Institute of Technology

Expected May 2021

Redmond, WA

### Bachelor of Science in Game Design and Development

Rochester Institute of Technology

Dec 2018

Rochester, NY