# Experience

**Rochester Institute of Technology** May - Present

GeoGames Designer and Developer

* Working in an interdisciplinary team with National Science Foundation Research Experience for Undergraduate students to create geogames at the intersection of geographic information systems, disaster resilience, spatial thinking, and serious games.
* Project Lilypad is a serious geogame made to improve spatial abilities and disaster resilience: reading and interpreting a map, navigating an environment, translating verbal instructions into physical navigation, and good practices in a disaster. Project LilyPad uses real world geospatial data, set in Dickinson, Texas in the aftermath of Hurricane Harvey.

# Education

**Bachelor of Science in Game Design and Development** Expected Dec 2018 Rochester Institute of Technology Rochester, NY

Presidential Scholarship

Dean’s List

# Skills

**Programming Languages:** C++, C#, HTML, CSS, JavaScript **VCS:** Git

**Graphics APIs:** Direct3D 11 (with HLSL), OpenGL (with GLSL) **IDE:** Microsoft Visual Studio

**Game Engines:** Unity, Unreal

# Projects

**Ori Engine**

is my dive into graphics and game engine programming.

using Visual Studio, Direct3D 11, C++, and HLSL. Main features include the following:

* Deferred Shading with normal buffer encoding and position reconstruction
* Physically Based Rendering, Soft Shadowing, and Screen Space Ambient Occlusion
* Cascaded Shadow Mapping and Particle System
* Post-Processing: Bloom, Eye Adaptive Exposure, Tone Mapping for High Dynamic Range

**The Adventures of Rob & Ots**

is a 2.5D online cooperative puzzle-platformer.

* Made in a team of four as network and gameplay programmer.
* Programmed ping communications, character selection, and user interface.
* Used Unity, Visual Studio, and C#.
* Played by two, using Rob & Ots’ unique abilities to work together and solve puzzles.