

# Connie Tatum Hilarides

## Game Developer and Software Engineer

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## Skills

### Languages

- C/C++
- Rust
- C#
- XAML
- HLSL
- Lua
- Ruby

### APIs

- DirectX 11
- Win32
- .NET
- FMOD
- PhysX
- UWP/WPF
- Luabind
- Tokio (Rust)
- Redis

### Tools

- Visual Studio (2012-2019)
- Visual Studio Code
- Unity
- Doxygen
- Cargo/rustc
- Git

## Academic Projects

Programmer (3-person team) Sep 2016—Apr 2017

*HoloTowers*, Tower Defense game in Unity, built for the Microsoft HoloLens

- Created a game in Unity and for the HoloLens
- Navigated the details of deploying a Unity project as a UWP
- Created pathfinding for dynamically-scanned terrain in Augmented Reality

Programmer (4-person team) Sep 2015—Apr 2016

*Pirate Hunt*, First-Person Action game, custom C++ engine

- Architected the Component-based game engine with Lua scripting
- Created a behavior tree AI system using Lua coroutines
- Built a Direct3D 11 renderer, with Direct2D-based UI
- Integrated Lua into the engine with Luabind and LuaJIT
- Created an in-engine level editor

Programmer (5-person team) Sep 2014—Apr 2015

*Roguebot*, 2D Rogue-like dungeon crawler, custom C++ engine

- Built a Component-based game engine with Ruby scripting
- Created a Direct3D 11 Sprite renderer with Direct2D text rendering
- Integrated MRuby into the engine, creating bindings for our C++ classes
- Designed the random level generator

## Other Projects

Programmer (5-person team) Jun 2012—2018

*Cloudsdale.org*, Themed text chat community

- Built the Windows Phone app, implementing the Bayeux protocol over Web-Sockets to communicate with the existing server backend
- Rebuilt the push notification server in the Rust programming language using the Tokio async I/O framework, bringing the memory requirements of the server down by multiple orders of magnitude

## Education

BS in Computer Science in Real Time Interactive Simulation

DigiPen Institute of Technology, Graduated December 2019