

Senior software engineer with 11+ years of experience working in the Gaming and B2B software industries. I'm a curious person who loves programming, and I can't help but bring that passion to work. My ideal job asks a lot of me, and gives me a chance to build amazing things alongside a talented team in return.

Work Experience

Senior Software Engineer - Rushdown Studios

2022 - Present

C++, Unreal Engine 5, Perforce, Go, Jenkins, Git, Protobuf, Easy Anticheat, Epic Online Services, Rust, Nomad, Kotlin

Worked at a co-dev studio helping clients build out backend services for games and integrate those services into their engines on the client side.

- (NDA) Large Game Publisher 2024
Worked on a sample Unreal Engine 5 project that game teams can use for reference when integrating with the publisher's services. Added support for multiplayer, integration with gamelift, and integration with the team's matchmaking backend. Also made improvements to the protobuf codegen process. Worked closely with development teams to build out features they needed.
- Glowmade 2023
Integrated backend services into a bespoke C++ game engine. Services included Text-to-Speech and Speech-to-Text support, as well as Easy AntiCheat integration. Also contributed to party management features. Worked with publisher and dev team to plan features.
- Singularity 6 2022 - 2023
Built a system to load test Unreal Engine 5 game servers. Packaged linux game clients as Docker images and ran them in the cloud to induce load. Improved game server metrics reporting to analyse load test results. Also used the system to run integration tests in the cloud. Worked with the game team to design integration tests. Worked with the backend services team to design load tests.
- Bonus XP 2022
Rightsized Unreal Engine 5 game servers based on resource usage patterns. Debugged issues caused by differences in client and server builds. Profiled and fixed network replication related slowdowns. Worked on migrating player inventory to the cloud. Added support for map travel in multiplayer sessions. Worked with developers and producers to plan and implement features.

Software Engineer - Tulip Interfaces

2019 - 2022

Node, Typescript, Webdev, React, Electron, Git, Linux, Windows, Sql, Mongo, C++, Elixir, AWS, Azure, Docker, Concourse, Github, Jira, Figma

Tulip makes a SaaS platform used to manage an assembly line. As a member of Tulip's Edge team, wrote code that ran on edge devices - both desktop applications that displayed work instructions and embedded linux services used to monitor manufacturing hardware. My responsibilities also included build infrastructure, developer tooling, and server side integration for edge services.

- Tulip Player - Contributed bug fixes and features to Player, an electron application used to display work instructions to end users. Stood up a testing pipeline for Player and improved the Player install experience for large scale deployments.
- Celos Player - Integrated Tulip Player into DMG Mori's machining tools. Added support for several DMG Mori specific data collection protocols.
- Embedded Connector Host - Ported an existing device integration tool to Tulip's custom linux variant, Tulip OS.

Software Engineer - L3Harris

2018 - 2019

Jenkins, Git, Visual Studio, Windows, Docker, Node-red, Webdev, D3, Jira

Worked as a Software Engineer at L3Harris. Helped to modernize the build and test infrastructure of CPA, a desktop application used to configure military radios. Also contributed to a prototype heads up display for military vehicles.

Software Engineer - Apprenda

2015 - 2018

C#, Sql, AWS, Azure, Visual Studio, Windows, Linux, Docker, Teamcity, Mercurial, Jira, Bitbucket

Apprenda made a PaaS product (Apprenda Cloud Platform or ACP) that can most easily be thought of as a Windows focused precursor to Kubernetes. Worked on Apprenda's Tools and Infrastructure team. Built a testing infrastructure that could deploy and test ACP on AWS, Azure, VMware, and Vagrant. Contributed to a cli tool for accessing ACP as well as Visual Studio and Eclipse extensions used to develop ACP apps. Built a system for monitoring ACP for downtime and degraded performance.

Software Engineer - Transfinder

2014 - 2015

C#, Visual Studio, Webdev, Subversion, Windows

Implemented features and fixed bugs in software used by School Districts and Bus Transportation Fleets to route and manage their vehicles.

Skills

Build and Deploy

- AWS
- Jenkins
- Docker
- Git
- Perforce
- CMake
- Make
- Nomad
- Teamcity
- Azure

Languages

- C++
- Go
- C#
- Bash
- Powershell
- Kotlin
- Rust
- Elixir
- OSs**
- Linux
- Windows

Game Dev

- Godot
- Unreal Engine 5
- GLSL
- Unity
- Epic Online Services
- Easy Anticheat
- Protobuf
- Blender
- SDL2

Web Dev

- HTML
- Javascript
- CSS
- React
- Typescript
- Electron

Database

- Postgre
- DynamoDB

Jira

- Jira

Education

Rochester Institute of Technology
May, 2014 BS Game Design and Development

Interests

I enjoy skiing, soccer, hiking, and canoeing. Typically not all at the same time. I'm an Adirondack 46r, Eagle Scout, and have hiked Vermont's Long Trail. I'm also known to play video games from time to time, weather permitting.

Select Hobby Projects

I program a lot outside of work. A selection of hobby projects is included below. See [ajlity.com](#), [github.com/alekslitynski](#), and [tavoe.itch.io](#) for more.

Godot Engine Memory Profiler PR

Fall 2024

Added a memory profiler to the Godot engine. The profiler captures all managed memory in a running game, saves it, visualizes it, and can diff multiple captures. Helpful for detecting leaks and managing memory budget. Written in C++.

The PR has not been merged yet: [github.com/godotengine/godot/pull/97210](#).

Nood Dude Skydiving League

Winter 2024

Game jam game made in Godot. An arcade skydiving simulator. Made over a weekend on a team of three - two programmers and an audio engineer. As a programmer, I worked on procedural level generation, character controls, the scoring system, the tutorial, and NPC behavior. Added camera shake and wind lines to enhance player immersion. I also drew the main character and a few other art assets.

Metal Shears: Styled Lid

Summer 2024

Game jam game made in Godot. A 3rd person physics sim. Play as a barber who has to slice up cubes and throw them away. Slice mechanics are inspired by Metal Gear Rising. Made on a team of three - one artist, one audio engineer, and one programmer. As the programmer, was responsible for camera controls, the 3d person character controller, character animations, object slicing physics, tracking player progress, and all visual effects.

Windmill Slam

Spring 2024

Game jam game made in Godot. A deckbuilding roguelike. Developed over the course of a month by a team of three. Two programmers, one artist/game designer. As a programmer, I was responsible for building the framework that ran the card game, most graphical effects, card animations, and implementing most user interactions. Worked closely with the designer to provide a framework that could support hundreds of card effects.

“Wizard Game” Game Engine

Fall 2023

Small game engine made with SDL2, C++, CMake, and OpenGL. Has an entity-component system, a rendering subsystem, and a physics subsystem.

Sacrosanct

Fall 2023

Game jam game made in Godot. A mash up of a tower defense game and tetris. Made over the course of a weekend on a team of three - one programmer, one artist, and one audio engineer. As the programmer, was responsible for handling user input, dynamically adding blocks to the 3D map, block physics, all animations, camera controls, and dynamic enemy pathfinding. Was also responsible for implementing player turret behavior, and all graphical effects.

Tombworld

Fall 2021

Game jam game made in Godot. A 3D metroidvania made over the course of a month on a team of 4. One writer, two programmers, and one artist. As a programmer, was responsible for menus, weapons, enemy behavior, level design, game states, game saving, the dialog system, the character control, player physics, first person camera controls, and most graphical effects.

Au Banque

Summer 2021

Game jam game made in Godot. A platformer where you rob a bank. Made on a team of two - a programmer and an artist. As the team's programmer, implemented the character controller, physics, game state management, and menus.

Tagsystem

Fall 2016

A command line utility written in C. Allows users to organize files using groups instead of directories.