

Luna Vivian Zaremba

[she/fae/they]

First Person Animator & Unreal Engine Art and Animation Generalist

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Experience

BRUTALISK (Present) – Unreal Generalist Contractor

- Working on a First Person Shooter in Unreal Engine 5 that's looking for a publisher - <https://brutalisk.substack.com/>
- I'm creating First Person Animations using Blender.

Folded Fox (2023-Present) – Character Pipeline/Unreal Generalist Contractor

- Working on an unannounced tactics game in Unreal Engine 5 that's currently in a concept stage and is looking for a publisher.
- Helped establish a Character Pipeline for the team's needs at the time.
- Used Blender to create a full character skeleton to be used in the game.
- Set up an IK Rig and IK Retargeters in Unreal to provide a way for the team to easily retarget existing animations and animations from marketplace assets to use on characters with a very stylized aesthetic.
- Created a Control Rig to provide the team with a way to create animations for their character models in the engine.
- Skinned character meshes in Blender.
- Worked on the macro flow of the game. Part of the work involved creating a Main Menu (using UMG and C++) that would have buttons for specific levels (defined by the developer in project settings) for easy demonstrations.
- Ported the game code to Mac to allow team members to work from Macs.

Splash Damage (2022-2023) - Animation Programmer

- Worked on Project Astrid, a first person survival game in Unreal Engine 5 in a pre-production stage - <https://www.splashdamage.com/news/announcing-project-astrid/>
- Responsible for the Player's Animation Blueprints and Control Rigs.
- Game used a "True First Person" approach of sharing animations between First and Third Person, but we wanted to not have the jankyness that comes with simply attaching a camera to a third person character.
- Helped make the First Person view model feel stable and controlled, almost like a game with a separate first person view model.
- Experimented with using Unreal's Physics Control Component for hit reactions and ragdolls and delivered a working prototype.

Reikon Games (2019-2022) – First Person Animator

- Worked on Final Form, a co-op first person shooter in Unreal Engine 4/5 – trailer is available at <https://youtu.be/GvWeffhGVck>
- Did all first person animations for the project using Maya.
- Responsible for the first person specific rigs.
- Created a system to let the player's left hand mechanically open for certain skills.

- Made rigs and animations for environmental objects, such as doors and chests.
- Implemented all animations I've made in the engine.
- Created and maintained Animation Blueprints.
- First Person Animation Blueprint had such features as:
 - Left hand animations compatible with any gun, while only needing one animation. We were able to experiment with a lot of animated gameplay abilities quickly.
 - Every animation except Idle Pose was additive, enabling me to reuse such animations as walking, sprinting, dodging, jumping, etc. between weapons and override them on a per-weapon basis if necessary.
 - Firing the weapons played an animation (could be looped) additively on top of normal firing anims that got more intense the more the player held the fire button to give recoil more impact.
- Created a rig and set of animations for a flying drone enemy and implemented it in-game.
- Experimented with using Ragdoll Dynamics for death animations for drones and humanoids.
- Collaborated with Gameplay and Programmers on features and weapons.

Bossa Studios (2019) – Intern Programmer

- Prototyped a webcam-based facial animation system in Unity using C#.
- Used dlib and DlibDotNet.
- Created a GUI app (using C++ and ImGui) for training facial landmark models specifically for use with dlib.

Other Projects

UMG Editor Toolbars

Create toolbars directly in Unreal's Editor using UMG.

Available at <https://theenbywitch.itch.io/ue-umg-editor-toolbars>

ImGui Blueprint

Create debug UIs using Dear ImGui in Blueprints.

Available open source at <https://github.com/TheEnbyWitch/ImGuiBlueprint>

PlatformerGame

A retro style platformer heavily inspired by Rayman 2. Made with Unreal Engine 4/5.

It's my personal passion project that I've been working on to learn what it takes to create a game in Unreal mostly by myself.

- Rigged and animated (in Blender) the Player model.
- In the past I've used Maya for rigging (with mGear) and animation
- I wrote a blog post about creating custom nodes using Slate for a possible dialogue editor <https://blog.of.the.enbywit.ch/blog/custom-dialogue-nodes-slate-flowgraph/>
- Created a custom CMC for the player character to have a better, smoother feel.
- Created custom nodes for the FlowGraph to enable easy level scripting.
- Set up a build pipeline (for Windows, Linux and Switch) using TeamCity.
- Ported to iOS and Nintendo Switch with a 60fps target.

A video of it is available here: <https://www.youtube.com/watch?v=B7nU1q49r-c>

WinterGame

Two girlfriends go on vacation and end up getting into a mystery surrounding a small town in the Alps. Made with Unreal Engine 5.

- Created character models for use with Mutable to allow for creating varied NPCs.
- Made a Control Rig to create animations for characters in the editor and an IK Rig and IK Retargeter.
- Created a Dialogue system using SUDS as a base (seen in the trailer below) for use in gameplay and certain cutscene sequences.
- Made shaders to support a PS1/NDS style retro aesthetic.
- Created a toon shading material for character that Megan Fox of Glass Bottom Games ended up using in her own project.
- Created a custom lighting system that lets the toon shading on characters use Unreal's lights without engine modifications.
- Set up a build (Windows and Linux) and testing pipeline using TeamCity.
- Ported to iOS with a 60fps target on almost all currently supported Apple devices and created a C++ plugin that lets me create touch controls directly in UMG.
- Ported to the Nintendo Switch with a 30fps target.

I've made a trailer that shows the general vibe and art direction of the game, which is available at:

https://youtu.be/RnvnTjp_nWE

Here you can find a video of the various things I've done for it:

<https://youtu.be/HKnSZpAsMro>

Accumulation-based Motion Blur plugin for Unreal Engine

I've created this plugin to replicate the motion blur effect, which was used in games like Metal Gear Solid, Call of Duty, Yakuza, etc.

The effect is accessible via Blueprint and C++ APIs, and it can be used in Sequencer too.

Available at <https://amb.enbywit.ch/> with documentation at <https://docs.amb.enbywit.ch/>

Boreal Alyph (2017-2021)

- I was the main programmer on this project, which was made with the Source Engine.
- Did all First Person animations for the project using Maya.
- Created rigs for the hands and all the weapons.
- Collaborated on the implementation of a PBR-style deferred renderer in the Source Engine, using DirectX 9.
 - Implemented support for self-shadows on the First Person view model.
 - Implemented the Oren-Nayar diffuse model and GGX specular model.
 - Added support to the lightmap baker for a sun shadow mask that helped prevent sun light leaking in interiors.
- Managed a TeamCity instance to create Steam builds for the game.
- Managed Git and SVN repositories to store game code and assets.