

# PORTFOLIO

Quentin Guignard

Real-Time VFX · Technical Artist · Unity Developer



## About

I'm Quentin, a Swiss game developer. I create VFX and gameplay features, with a strong interest in visual and technical experimentation. I love exploring new tools, workflows and ideas.

## Core Skills

VFX programming & integration · Unity development · 2+ years in the game industry · VR · Desktop · Mobile · C# · TypeScript · Roblox Studio

# Contents

1. Citadel
  - a. Eagle Boss
  - b. Rocket Launcher
  - c. Bazzle Scan
2. The Village: Fireworks & Confetti
3. Personal Work
  - a. Meteor & Explosion
  - b. Jellyfish
  - c. Waves
  - d. Acrylic Paintings



# Professional Work - Citadel 2022-2025

Citadel is a cooperative multiplayer RPG where players climb a pyramid, fighting through monsters and bosses along the way.

## Contributions

- VFX
- UI systems
- Gameplay features
- Rendering & VFX performance profiling / optimization



# Professional Work - Citadel

## Final Boss Death VFX

My Contribution: design · implementation · integration · optimization

 Horizon ·  PopcornFX

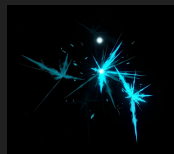
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The Eagle is Citadel's final boss. Defeating it triggers a cinematic built around its death VFX.

### Sense of Reward

Provides satisfaction to the player, acknowledging all the effort it took to defeat the Eagle with an explosive visual payoff.

### Effect Sequence



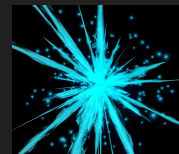
Crystal  
Explosions



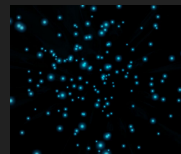
Growing Glow



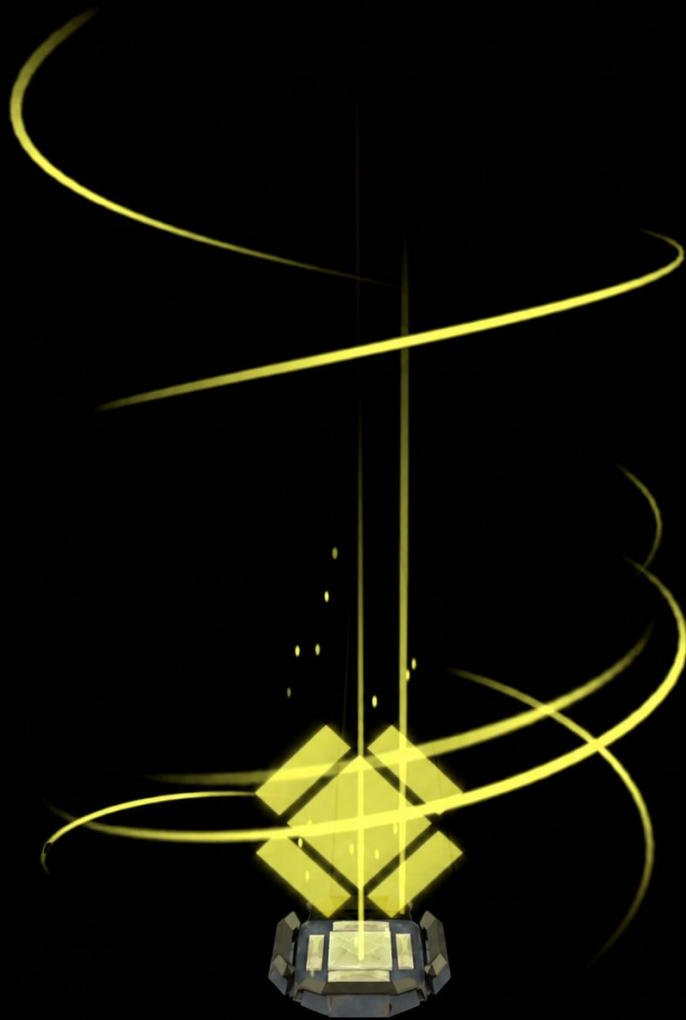
Power Surge



Final Explosion



Floating  
Sparkles



# Professional Work - Citadel Rocket Launcher VFX

My Contribution: design · implementation · integration · optimization

 Horizon ·  PopcornFX

 [Watch Video](#)

The rocket launcher is a platform that lets the player jump higher when shooting at it while standing on it.

## Intent & Storytelling

The rising particles and ribbons naturally suggest that this device launches the player upward.

## Visibility & Recognizability

The consistent yellow color stands out against the darker brown environment palette of the game, making the device easier to spot even in complex levels.

# Professional Work

## Citadel

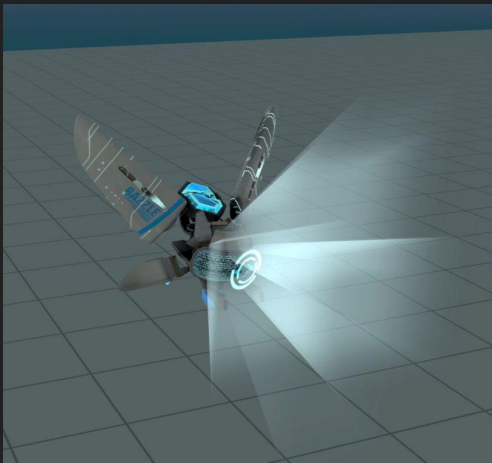
### Bazzle Scan VFX

My Contribution: design · implementation · integration · optimization

 Horizon ·  PopcornFX

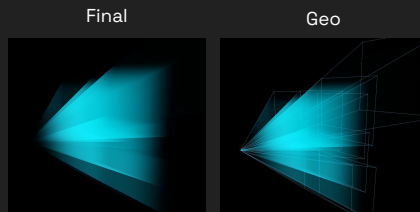
 Watch Video

Bazzle is the player's companion in Citadel. The effect is triggered when Bazzle is sent to find the level exit, giving clear feedback and showing that he is actively scanning.



3D model and animation by artists

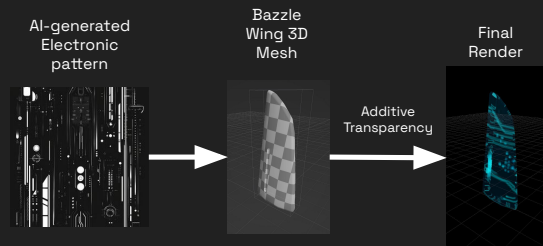
#### Scan Spectrum



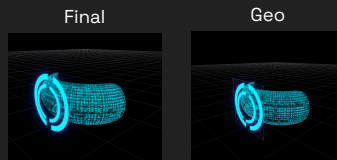
The scan spectrum is built from a moving pyramid shape, made of four separate triangle renderers. Each triangle uses a depth-based alpha gradient to create a soft, light-like fade.

#### Electronic Wing Patterns

We created separate VFX for each wing using the wing 3D model, then applied a glowing electronic texture pattern to reinforce the scanning effect.



#### Bazzle's Mesa



This effect combines two rotating billboards with the Mesa mesh, using a scrolling code-like symbol texture to create a futuristic scanning feel.





## Professional Work - The Village 2024-2025

Manage your villagers, defend your buildings, gather resources, and expand your village across floating islands.

### Contributions

- VFX concepts & integration
- UI development & integration
- Gameplay features
- Performance profiling & optimization

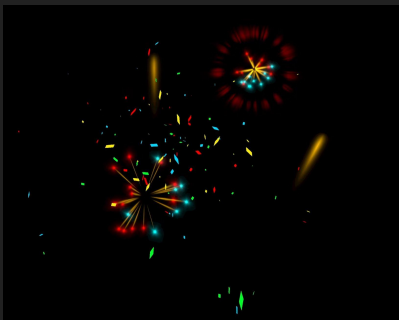


# Professional Work - The Village Fireworks & Confetti

My Contributions: design · implementation · integration · optimization

Horizon · PopcornFX

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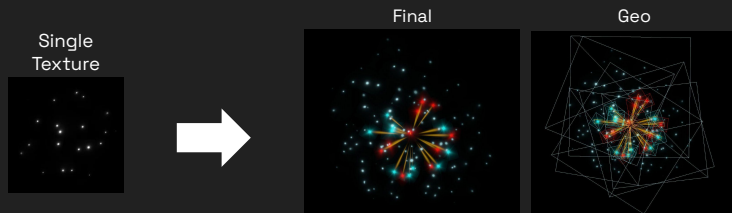
This effect had to run on mobile, so performance optimization was crucial. I reduced the particle count as much as possible by using specific textures, while keeping the visuals engaging and the motion appealing.

## Single-Particle Glow Trail



Impact: Strong visual appeal with a low particle count

## Sparkle Cluster Texture



Impact: Detailed visuals with a low particle count

## Texture Atlas for Confetti Rotation



Impact: Lightweight rotation using a texture atlas

# Personal Work

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# Personal Work

## Meteor & Explosion (1/2)

Unity · PopcornFX

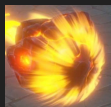
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These effects were authored in PopcornFX and rendered in Unity.

### Meteor Composition



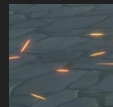
Bloom post-processing enhances the glow and makes the visuals feel more vibrant and engaging.



The fire dome was built from a hemisphere mesh with an impact texture applied to it.



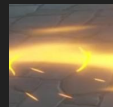
Fire Turbulence



The sparks use a simple glowing texture, with turbulence added to create more dynamic motion.



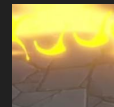
Glow



The fire trail is made from a ribbon particle using a scrolling fire texture.



Fire Trail



The fire embers use spawned particles with an alpha remap to dissolve over time.

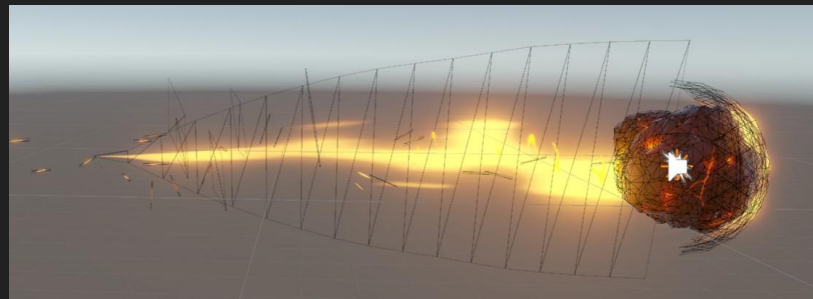


2x2 Ember Atlas



Alpha Remap

Geometry



Final Render



# Personal Work

## Meteor & Explosion (2/2)

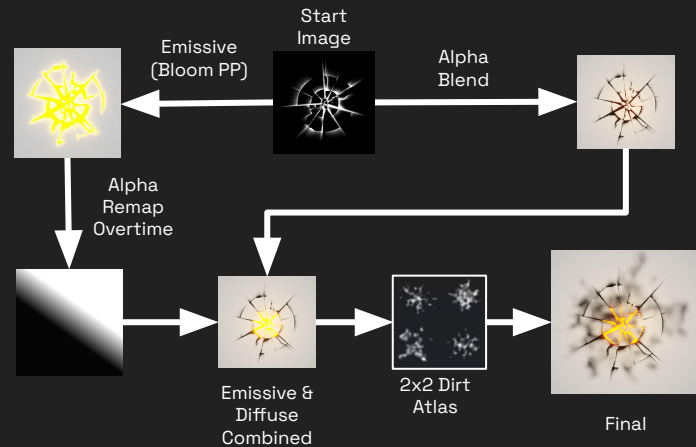
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### Explosion Sequence

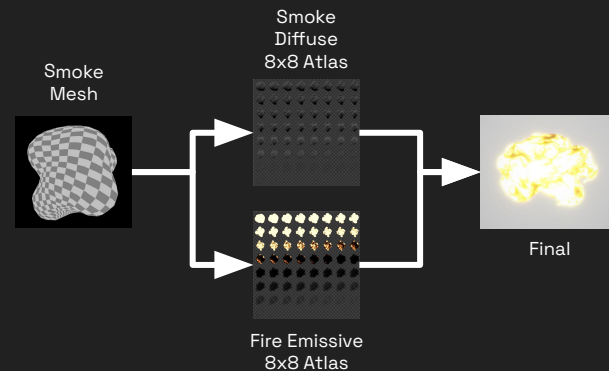


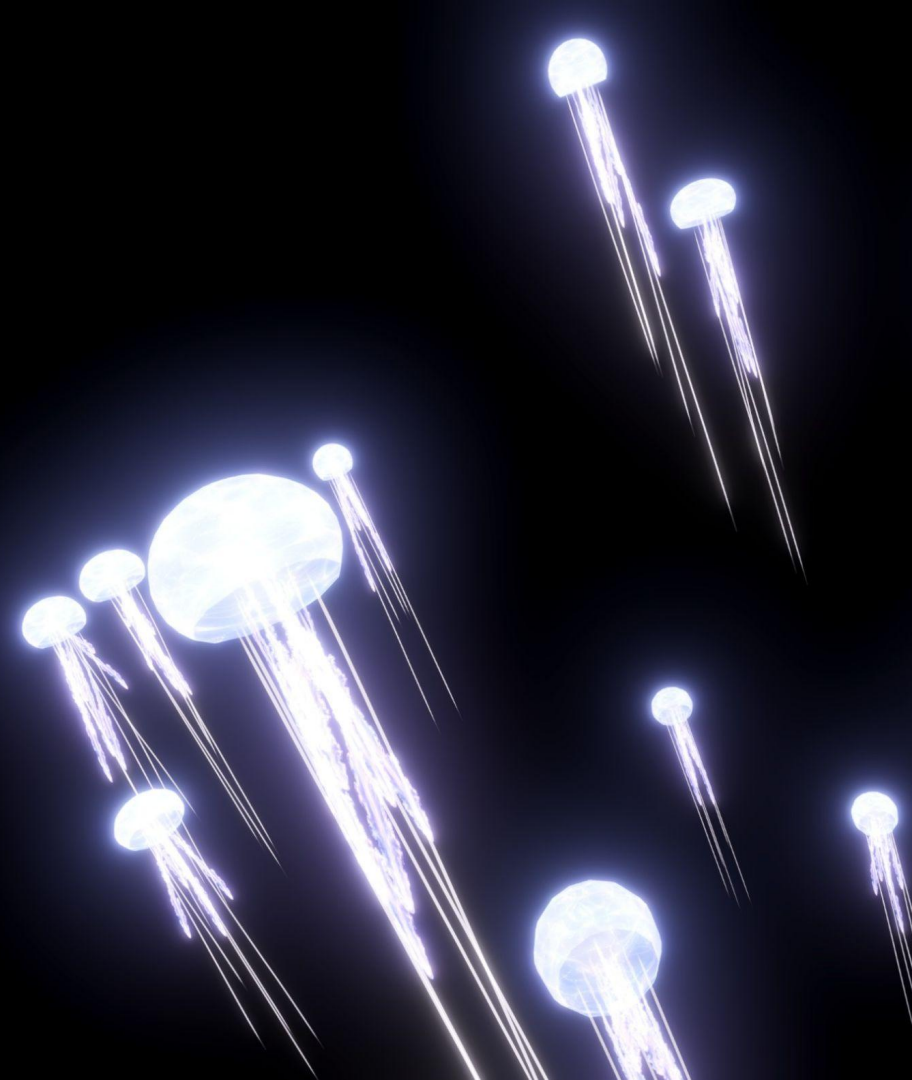
An explosion is generally built around three phases. First, the bang: a burst of fire that strongly conveys the power of the explosion and happens almost instantly. Second, the fire cloud: a slower phase that helps convey the heat and lasting energy of the blast. Finally, the aftermath: smoke and cracks that help the effect transition back to an equilibrium state.

### Crack Composition



### Fire Cloud Composition





# Personal Work

## Jellyfish (1/2)



PopcornFX ·



Blender



Watch Video

### Description

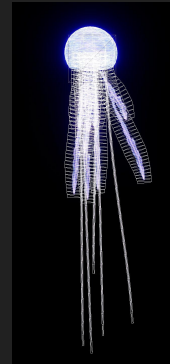
This effect was made in PopcornFX and simulates peaceful jellyfish slowly drifting and fading through a dark ocean. Each jellyfish is animated using math and curves to create soft, natural motion.

### Jellyfish composition

Final



Geo



Overdraw



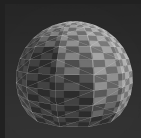
Each jellyfish is built from a bulb mesh made with Blender, with animated ribbon meshes used for the long and short tentacles.

# Personal Work

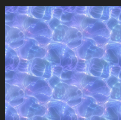
## Jellyfish (2/2)

### Jellyfish Composition Breakdown

Bulb mesh for the top part, created in Blender



AI-generated jellyfish bulb texture



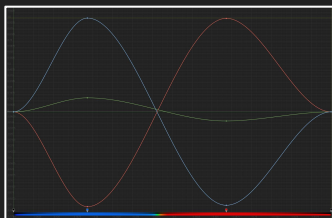
AI-generated tentacle texture



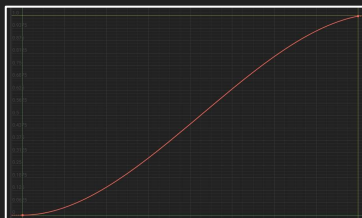
### Solving the Tentacles Motion

Each tentacle follows a time-offset 3D motion curve (a). This motion is then multiplied by a progressive amplitude curve (b), creating the illusion of physically simulated movement.

a) 3D Tentacle Position Curve Over Time



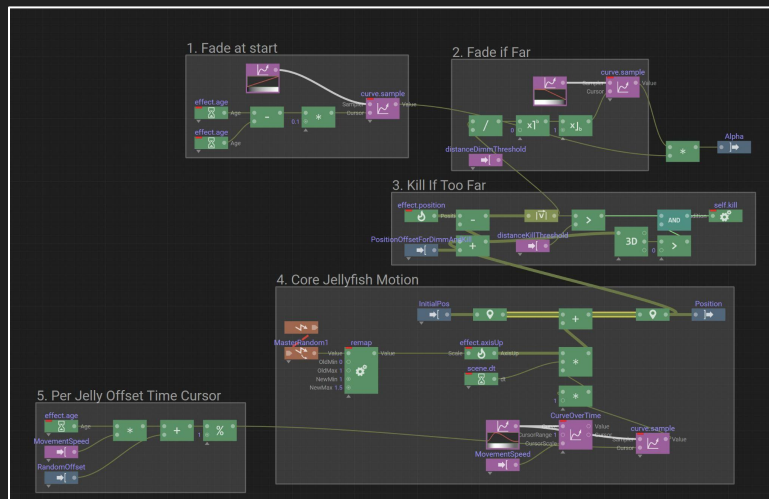
b) Progressive Amplitude Curve Along the Tentacle



### Solving the Jellyfish Motion

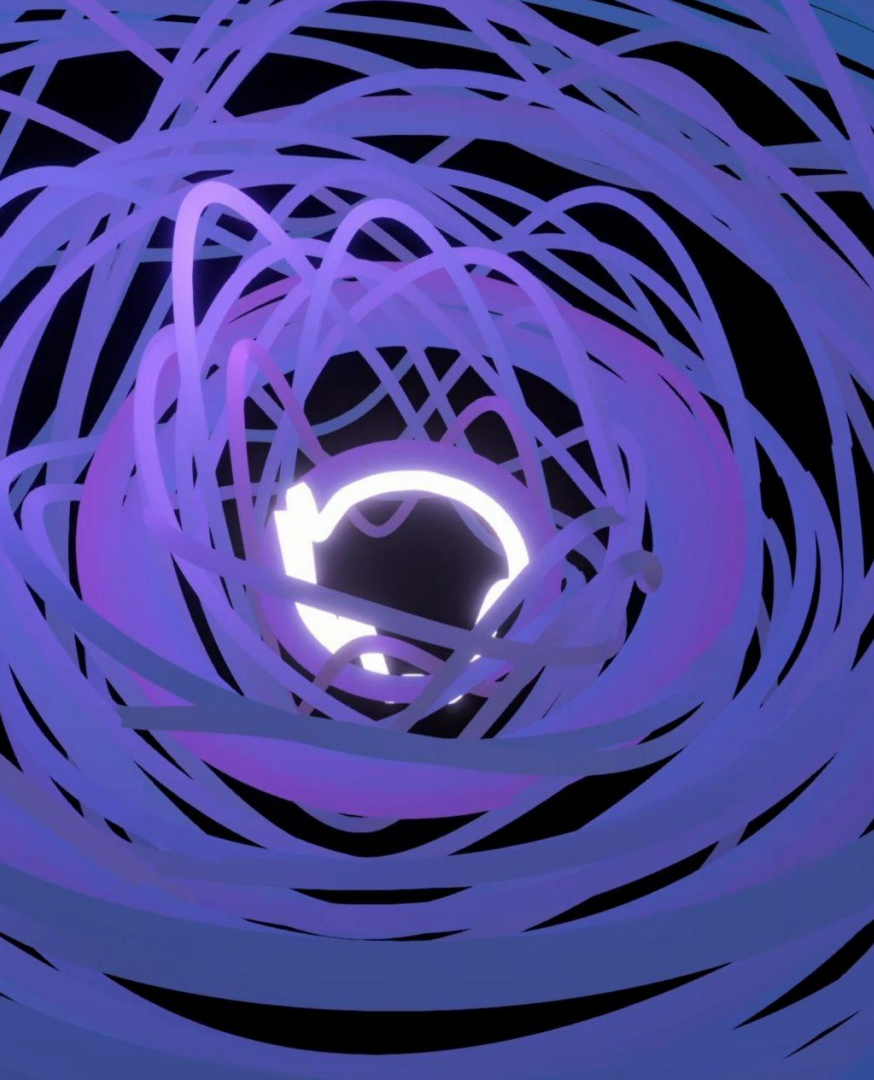
The hardest part of this project was recreating the organic motion of jellyfish using math and curves. The movement had to feel seamless, continuous, appealing, calm, and realistic.

I watched videos of swimming jellyfish to get a feel for their motion and tried to reproduce it. Below is the subgraph handling the global motion and alpha for a single jellyfish.



1. Fade at Start — Lowers alpha when a jellyfish is newly spawned to avoid sudden pop-in.
2. Fade if Far — Lowers alpha when the jellyfish is far from the center of the effect.
3. Kill if Too Far — Removes jellyfish particles after they move too far from the effect center.
4. Core Jellyfish Motion — Computes the cumulative jump-like motion of the jellyfish.
5. Per-Jellyfish Time Offset — Creates a unique time offset for each jellyfish to vary their motion.





# Personal Work

## Waves



Unity ·  PopcornFX

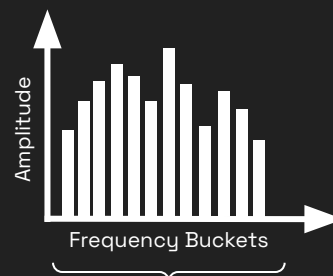


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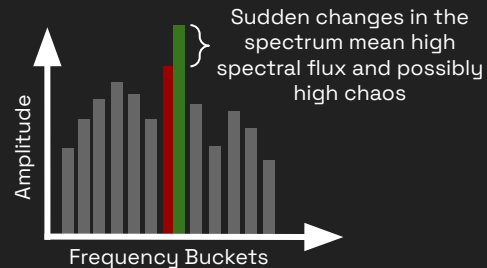
This effect is an audio spectrum visualizer. The song waveform is sampled and applied to the ribbons. The deformation amplitude and color are driven by the chaos of the sound.

### Chaos Measurement

We measure chaos by combining the total energy of the audio spectrum with the spectral flux, which represents the frame-to-frame difference in the spectrum. The “chaos” value tells us whether the sound currently feels agitated or calm. These values are computed inside Unity. Below are two diagrams explaining the process.

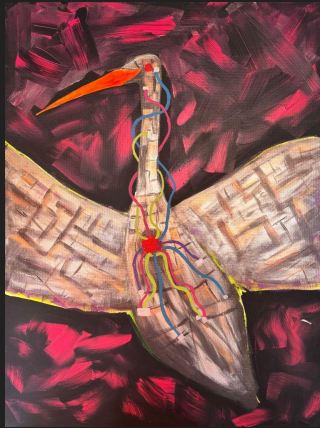


Total spectrum energy represents how loud the sound is



# Personal Art

## Selected Acrylic Paintings



# Want to see more projects?



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Meet Blue, my Creative  
Supervisor