

# Grigorii Kolesnikov

## Tech/Level/Systems Designer

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🛡 DigiPen Institute of the Technology

### 🧩 Hard Skills

C# ● ● ● ● ●  
Gameplay Programming

Unreal Engine 5 ● ● ● ● ●

Unity 3D ● ● ● ● ●  
Level Blockmesh  
Technical Design

SVN Source Control

Maya 3D ● ● ● ● ●  
Level Blockmesh  
Hard Surface Modelling

Blender

Adobe Photoshop ● ● ● ● ●  
2D art

Trello

Miro

Office Software

Data Analytics

### 🧠 Soft Skills

Interdisciplinary Communication  
Art-Design-Tech

Team Player  
Worked in teams of ~25 people

Professionalism and Punctuality

Critical Thinking

Sharp Learner  
3.6 GPA

Mentoring and Teaching  
K-12 Teacher and TA

### 🎮 Game Design Experience

#### Basil and the Isles of Spice (3D Platformer) (Junior Team Project) (25 people)

- Developed a 12-minute platforming exploration-focused level, from blockmesh to final polish. Worked with the art and tech teams to implement decorations and gameplay mechanics into the level.
- Helped to establish the main design pillars. Wrote the design documentation for the desired player controller states and behavior. Conducted a total of 26 playtests over the 30-week development cycle.
- Developed the currency and the progression systems. Prototyped the character customization feature.
- Optimized the game by implementing LOD and Occlusion Culling systems. Baked several object details into normal maps. Decreased the average number of batches and tris from 13k and 13mil to 1900k and 2mil respectively, raising the average fps from 25 to 50-60.
- Administered the game's playtest panel at Geekstravaganza 2023.

#### Zombie Shooter 3D (FPS) (DigiPen Personal Project)

Developed a fully functional First-Person Shooter game from the ground up. Developed the following design and tech features:

- Planned, blockmeshed, and decorated two 5-minute FPS levels for the gameplay vertical slice demo. Conducted 10 playtests throughout the 10-week development cycle.
- Implemented a boss-fight AI based on a 7-state FSM.
- Implemented full prop and enemy serialization for each level, as well as the serialization of the player inventory and progress.
- Implemented a modular health-damage system with a flexible zombie decapitation mechanic. The enemies lose limbs, heads, and torsos depending on the damage received.
- Implemented a navmesh FSM-based enemy AI that allows both action-based and stealthy playthrough styles.
- Implemented a first-person shooter controller that features Sprinting, Crouching, and 3 switchable weapon types.
- Implemented bullet ricochet and explosive barrel mechanics.
- Baked shadowmask lighting with light probes, reflection probes, and post-processing. Optimized the game to run on the lower-end systems.

#### Wild Wild Wetlands (3D Platformer) (Senior Team Project) (20 people)

- Designed, tested, and decorated 2 7-minute levels from blockmesh to final state.
- Designed and implemented the final "boss fight" level sequence.
- Designed and implemented interactive lasso puzzles, featuring physics interactions and animated objects.

#### Puzzle garden (Hyper-casual puzzle) (6 people)

- Designed the main gameplay loop as well as the majority of the mechanics. Did systems calculations for the vegetable profit/growth time etc. (7 vegetables)
- 3D modeled all of the assets for the game.
- Designed the game's UX for the player's interactions (Particles, timing).

### 🎓 Education

Bachelor of Arts in Game Design, DigiPen Institute of the Technology  
09/2020 – 04/2024

### 👛 Professional Experience

#### DigiPen Summer Camp (WANIC), Teacher/TA

- Teacher and TA for the following k-12 and WANIC programs:
- 2023 WANIC Pre-college: Statistics Analysis (Teaching R, Excel and statistics to a class of 75 students)
  - 2022 and 2023 DigiPen Pre-College: Game Project Lab (Student support on Unity)
  - 2022 and 2023 DigiPen Pre-College: Applied Math & Physics for Games (Student support on Unity and class operation)

#### Meta, Meta Quest Research Participant

Participated in a VR research for Meta Quest