

# Wilhelm Beierl

Brantford, Ontario  
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I'm a Computer Science student with a technical art focus, experience with Unreal Engine, shaders, and procedural systems

<https://github.com/willbeierl>

<https://willbeierl.github.io/>

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## TECHNICAL SKILLS

### Game Engines

Unreal Engine 5 (Materials, Blueprints, PCG, Lighting, StateTrees, Optimization)

### Graphics & Shaders

HLSL (Unreal Materials)

GLSL (Procedural terrain, noise, lighting models)

Shader math, noise functions, heightmaps

### Programming & Scripting

Python

C++

C#

Java

C

Blueprint scripting

Git / version control

### Game Art Pipelines & Tools

Unreal Engine asset import, setup, and optimization.

Skeletal mesh configuration and animation retargeting.

Material instance and shader workflows.

Basic Blender familiarity.

## PROJECTS

### Procedural Terrain Generation System — GLSL, WebGL

Designed a fully procedural terrain system using Perlin noise with seamless chunk based streaming for a computer graphics course at university with a fellow classmate.

### Unreal Engine Horror Game — Unreal Engine 5

Custom materials, lighting workflows, and procedural systems.

NPC AI, state tree logic, NPC animations.

Gameplay mechanics, game stage logic, UI and menus.

Optimized performance with culling, PCG adjustments, and material simplification.

Gameplay sound design, original soundtrack.

## EDUCATION

### Trent University, Peterborough — Bachelor of Computer Science

SEPT 2021 - EXPECTED APRIL 2026

#### Relevant Course Work

- Computer Graphics
- Advanced Algorithms
- Data Structures
- Game Studies

## GENERAL SKILLS

Rapid learner of new tools, engines, and workflows.

Strong attention to detail.

Technical problem solving and debugging.

Cross disciplinary communication (art & engineering)

## WORKPLACE EXPERIENCE

### NVK Nurseries - Farm help / machine operator.

Spring-Summer 2024, 2025.

Gained many transferable skills in a workplace environment. Problem solving, teamwork, and time management skills, consistency and discipline.