

# Alan R O’Cull

## Technical Artist

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Looking to create and improve graphical tools and pipelines with a technical skillset.

### Experience

#### Simulation Engineer Intern

Indianapolis, IN

*BATS Wireless*

**May 2021 – August 2023**

- Developed real-time interactive radio simulation software using Godot Engine and Golang
- Visualized complex data like antenna gain patterns for readability by using real-time meshing
- Crafted 3D physics simulations to match real-world concepts like suspensions, wind, buoyancy
- Designed a map-making pipeline using GIS and GLTF to get real places in-sim within the hour
- Applied graphical concepts like barycentric coordinates to data interpolation for better accuracy

### Projects

#### Abyss

West Lafayette, IN

*Personal Project*

**August 2023 – Present**

- Produced a physics-based action-platformer videogame in Godot Engine
- Created rigging scripts and a Blender plugin with Python for faster iteration on character rigs
- Developed “island builder” Rust plugin to instantly convert level whitebox to game-ready terrain
- Crafted a 3D humanoid character with over 50 animations and responsive animation blending

#### Technical Animation Director

West Lafayette, IN

*Hook, Line and Axe (Senior Capstone)*

**April 2023 – April 2024**

- Collaborated with a team of seven using agile methodology to develop a hack ‘n’ slash in UE5
- Provided support for animators, working closely with all teams for streamlined asset integration
- Automated animation exports using Python to handle over 70 animations from separate files
- Outlined design specifications for each department for clear technical requirements
- Implemented animations using UE’s Animation Blueprint system, with montage support

### Leadership

#### President

West Lafayette, IN

*Purdue ACM SIGGRAPH Club*

**May 2023 – May 2024**

- Created a collaborative space with other Purdue club leaders to revive a campus community
- Assisted in hosting *Fractal*, a live student-work showcase with over 70 project submissions
- Organized software workshops for 3D tools like Blender and ZBrush to empower students

#### SIGGRAPH 2024 Student Volunteer

Denver, CO

### Education

**Bachelor of Science** from Purdue University

West Lafayette, IN

Majors in **Animation, Game Design**

Graduated **May 2024** with **3.95 GPA**

### Skills

Rigging, Shading, Lighting, Rendering, Modeling, Texturing, Animation, Linear Algebra  
Blender, Maya, Adobe Substance Suite, Godot Engine, Unreal Engine, Unity  
Rust, Golang, C/C++, JavaScript, Python, Lua, CSS | SDL, Web Hosting, Git, Linux

### Scholarships and Awards

Dean’s List

December 2020 – May 2024

Purdue Presidential Scholarship

August 2020

Cashier of the Month

July 2020