

# Nathaniel Ferguson – Gameplay Programmer

*Led a student team from prototype to publish on a 13-month student project. Not afraid to ask questions and put in extra work to grow as a young developer. Bachelors in Comp Sci & Game Design [Indiana University]*

## Skills

**Languages:** [1+ Years Experience]: Java, Python

[Basic Familiarity]: C/C++, C#

**Engines:** [1+ Years Experience]: Unreal 4

[Basic Familiarity]: Unity

**Used Practices:** SCRUM, test driven development, peer-review, pair programming, defensive programming, Git, Unix

## Relevant Work Experience – Focus on test-driven development, scalability, clarity

**HumaNature Studios – Anuhea (Google Stadia R&D Project)**

**2 months - 01/2020-03/2020**

*Prototype Engineer Intern*

**Python, C++**

- Worked in an agile-based environment, pulling from Lean, XP, automated testing, and DevOps
- Refactored critical, unwieldy code into a readable, well-documented code utilizing defensive programming
- Delivered monthly milestone updates to Google to secure funding
- Integrated with existing development pipeline 2-3 weeks faster than projected by technical lead
- Focus on test-driven development with thorough technical design documenting to maximize designer iteration speed
- Worked with the lead designer for a smooth development pipeline and consult on ideas
- Developed by contract for smooth parallel development with other engineers

[Executive Summary Link](#), [Technical Approach Deck Link](#), [Data Sheet 2.0 Parser TDD Link \(written by me\)](#)

## Notable Educational Experience – Focus on project management, design, engineering

**Indiana University 2019 – Computer Science BA, Game Design BS**

**Rollossus – Student Project – Launched on Steam and Itch.io**

**13 months - 01/2018-03/2019**

*Team Lead, Gameplay Programmer*

**Unreal Engine 4**

- Published on Steam and itch.io on March 1<sup>st</sup>, 2019
- Managed a team of 10 people for 13 months, including designers, team artists, and hourly paid outsourced artists
- Worked in Blueprints and supplemental C++ in UE4 to create efficient code that designers could easily tune in real time
- Helped design and completely implemented player movement ([blog post](#)), some player abilities, and all four enemy types
- Created project milestones, made weekly sprints, and assigned tasks to ensure we met launch and festival dates
- Helped decide profit splits and bill splitting for team members when team formed an official LLC
- Organized a profitable launch party with a local business. [Blog Post Here](#)
- Steam Link: <https://store.steampowered.com/app/1022160/Rollossus/>

**Skeet Shooter – Class Project**

**1 Semester - 08/2019-12/2019**

*Solo Developer*

**C, Unix, Discovery Circuit Board**

- Worked exclusively in C to interface with basic circuit board hardware
- Worked extra with teacher assistants to optimize image drawing for quick rendering and zero flicker on moving objects
- Spent the semester building up my collection of helper functions ahead of time to ensure easier development of final project
- Video Demo: <https://youtu.be/Tkmncdbma4k> Code Repo: <https://github.com/ngmferguson/SkeetShooter>

## Other Work Experience – Focus on team-oriented work, quick decision making,

**Indiana University Residential Services & Programs**

**Bloomington, IN**

*Residential Assistant*

**2 years - 08/2017-05/2019**

- Worked closely to build trust with 31 other staff in the 3<sup>rd</sup> largest dorm in the US
- Worked with residents daily, sometimes in crisis situations
- Planned, pitched, and executed events

**The Cade**

**Bloomington, IN**

*Bartender*

**7 months - 05/2019-01/2020**

- Work in a fast-paced environment where clear, quick communication is key
- Monitor customers for dangerous behavior and diffuse tense situations
- Learned to work with Raspberry Pi machines to provide technical support on arcade machines
- Was trusted to be detail-oriented and to handle large amounts of money
- Developed good relationship with coworkers to ensure smooth operation in high-stress situations

## Location/Contact Info

*Currently: Lahaina, HI – Relocation: Anywhere is fine, I only need to move two suitcases and a car*

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