

# Malcolm McDonough

## Technical Game Designer

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I am a technical designer with 2 years of experience, primarily in gameplay and systems design, and several released projects built in the Unity Engine. I am devoted to creating engaging games and strive to do so by designing interesting mechanics, functional systems, and unique gameplay features.

## SKILLS SUMMARY

**Software/Languages:** Unity Engine | C# | C++ | C | Python | Git/GitHub | SQL | CSS | Microsoft Office | GSuite

**Design Skills:** Systems Design | Gameplay Design | Game Balance | Design Documentation

## PROJECT HISTORY

**SCP: Secret Lab** | *Game Designer*  
October 2023 - Present

**Cardificer** | *Technical Designer*  
May 2023 - Present

**BladeCaster** | *Game Designer*  
October - November 2022

**Other Major Projects:** *Road To Freedom* (Technical Designer)

**Game Jam Projects:** *Dream Reaper* (Technical Designer) | *Love Birds* (Technical Designer)

## DESIGN EXPERIENCE

### Systems Design

- **Designed** a modular action system for Cardificer, a rogue-like deck-builder, to maximize the flexibility of core systems, enabling card combining mechanics that expanded the number of attacks in the game from 55 to 3,000+.
- **Built** the central “On-the-Road” system in C# for Road To Freedom, an educational RPG, to facilitate unforgiving “learn by failing” game mechanics, simulating the harshness of the Underground Railroad in 1850s America.

### Gameplay Design

- **Developed** four weapons with unique movesets for BladeCaster, a 2D action platformer, to provide diverse movement and combat options to players, allowing them to take a range of approaches to the game’s puzzles.
- **Created** a cast of 4 bosses and 69 enemies for Cardificer with “push-and-pull” behaviors to compliment the flow of gameplay, giving players time to think through their actions while keeping the combat’s intensity high.

### Game Balance

- **Tuned** thousands of values such as damage, health, and resource drop rates in Cardificer to create consistency between cards, enemies, and other randomized game elements, maintaining a fair baseline between runs.
- **Maintained** a database of 132 events for Road to Freedom, balancing rewards, skill checks, and resource demand throughout the game, guaranteeing there were no routes that lead to unwinnable or unloseable game states.

### Leadership and Team Communication

- **Collaborated** directly with artists and sound designers for Cardificer to communicate several unintuitive programming or design requirements, ensuring that visual and audio assets were both cohesive and functional.
- **Guided** classes of 20-30 students as a Teaching Assistant through regular weekly TA sessions, helping them to complete assignments, find solutions to problems, and understand important concepts taught in class.

## EDUCATION

**Denison University**, Granville, OH

*Bachelor of Arts*, Computer Science, Mathematics Minor

Expected Graduation: May 2024

GPA: 3.53/4.00

- **Relevant Coursework:** Game Design | Algorithm Design & Analysis | Computer Networks | AI | Applied Statistics | Linear Algebra | Multivariable Calculus | Computer Systems | Data Structures | Data Systems
- **Honors and Awards:** Computer Science Department Fellow, *August 2023 - May 2024*