

David Robitaille

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Objective

I am a Gameplay Programmer studying game development and computer science seeking opportunities for Summer 2020 and beyond.

Education

Michigan State University

- Bachelor of Arts in Media and Information
- Minors in Computer Science and Game Design and Development
- Specialization in Game and Interactive Media Design

Graduating Spring 2021

3.98 GPA

MSU Honors College

Professional Experience

Gameplay Programmer / Developer

Mar. 2019 – Present

Games for Entertainment and Learning Lab, Michigan State University

Plunder Panic – Anticipated release: 2020 on Nintendo Switch, Steam

A multiplayer arcade game for up to 12 players; winner of the 2017 IndieCade Audience Choice Award

- Designed and developed a dual-utility AI for computer-controlled players
- Implemented a node-based movement system for the AI, utilizing a modified A* for pathfinding
- Streamlined the process of creating new AI behavior using the Subclass Sandbox pattern
- Redesigned and implemented an interactive character select menu

Whiplash – Showcased at the 2020 Intel University Game Showcase on Valve Index

A VR action game where players use two lightning-powered axes to fight through a horde of robots

- Implemented a “Kung-Fu Circle” attack system to prevent overwhelming the player during combat
- Prototyped and designed the primary mechanics to create a vertical slice of the game that was then approved for further development
- Designed and developed an abstract state machine to facilitate development of the enemy AI

BPG Africa Games – Released January 2020 on iOS

A package of brain-training mini-games to cognitively rehabilitate children with brain damage

- Re-created the original set of Brain Powered Games and began prototyping Village Builder
- Traveled to Uganda to playtest and to oversee the training of local researchers

Island Saver – Released May 2019 on iOS and Android

A mobile endless runner game aimed at teaching children the importance of financial literacy

- Saw the game from alpha through to release and continued improvement after launch
- Reworked existing systems, including progression, saving/loading, and player customization
- Optimized overall performance on mobile platforms

Teaching Assistant (TA)

Aug. – Dec. 2019

MI 431 Advanced Game Development course, Michigan State University

- Instructed 20+ students on advanced game programming topics including Gang of Four design patterns, AI, procedural generation, linear algebra, and Entity Component Systems/data-oriented design
- Improved student understanding of game programming topics by holding weekly office hours and by remaining active in an online help room
- Developed an app for Prof. Jeremy Bond designed to help him remember the names of his students and to simplify the process of keeping attendance

Skills

C#, C++, Unity Engine, object-oriented design, data structures and algorithms, 3D math, Unreal Engine 4, Python, Scrum

Interests

Artificial intelligence, Game Design, procedural content generation, systems design, AR/VR/XR development, tools programming

Extra-Curricular Activities

Spartasoft Game Development Club, Overwatch Club

Michigan State University