Emma Simon – Technical Artist

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EDUCATION

BS in Computer Science **May, 2024**
University of Texas at Austin *Austin, TX*

- GPA: ~3.7
- Relevant Coursework: Game Technology, OOP, Operating Systems, Computer Architecture, Data Structures, Software Engineering
- Campus Involvement: President of Texas Juggling Society

SKILLS

PROGRAMMING: C++, C, Python, Java, C#, OpenGL, x86-32 ASM, GDNative/Extension, GDScript
DCC: Aseprite®, Godot Engine, Unreal Engine®, Photoshop®
CORE: Scripting, Shader Programming, Rigging, Animation

ACADEMIC PROJECTS

Ink

- 2D Side Scrolling Survival Horror Platformer
- Designed all Animations, Art Assets, Animation State Controller, Level Design, AI Controllers, and Player Physics Package. Goal was to create a Tech Demo for an advanced 2D AI Controller that would "stalk" the player around the game level.
- Written in Godot 3.3 and GDNative C++, Animations and Art created using Aseprite®.

Untitled Robot Platformer

- 3D 3rd Person Platformer my group iterated on over the course of our Game Technology Course
- Designed Particle System and Liquid Shaders System independently. Heavily contributed to all other features.
- Features: Advanced Player Package (walking, running. jumping, crouching, gliding), Multiplayer Networking (RPC, RSET), Basic AI Enemies, Particle System, and Liquid Shaders System.
- Written in Godot 3.3 and GDNative C++.

Kernel

- Wrote a Kernel based around UNIX design principles and standards.
- Features: Preemptive Multithreading, ext2 File System, Caching, Demand Paging Virtual Memory, User/Kernel Mode and ASM Context Switching, and System Calls (exec, fork, write, exit, etc)
- Included a Final Project where as part of a group we independently implemented graphics and keyboard input functionality through virtual memory mapping to create a "Virtual Piano"

WORK EXPERIENCE

Teaching Assistant **May 2021 – Present**
University of Texas at Austin *Austin, TX*

- I have consistently TA'd for various core classes within the UT CS department over the course of the past two years. These have included Introductory Python Programming (CS 303E), Intro to Java Programming (CS 312), and presently for the past year, Data Structures (CS 314).
- Core Responsibilities
    - Extensive knowledge of core course material, holding help hours, holding discussion sections, grading assignments, grading exams, devising exam questions, professionalism and conflict resolution skills