

Research Proposal

Pixel Art in Modern Video Games:
Breaking old traditions to overcome former limitations

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WiSe 21-22 // Prof. Emily Smith

Topic & Research

Title:

Pixel Art in Modern Video Games

Subtitle:

breaking old traditions to overcome former limitations

Desired Advisor:

Prof. Stamm

Research Question:

How can modern techniques improve the game feel and immersion of pixel art games?

Key Topics:

the history of the pixel
shader implementation
stiff vs dynamic sprite usage
various experimental techniques

Research Methods:

using the limited research data available

building on my former semester paper

practically analyzing pixel art games and their methods and techniques (including game dev)

“interviewing” other pixel artists about the topic

Objectives & Inspiration

what do I hope to achieve?

expanding my field of theoretical and practical knowledge for my future career

stepping out of my comfort zone to improve as a game developer

Where does my inspiration come from?

modern successful pixel art games
(mostly indie games)

especially games like Celeste, Hyper Light Drifter, Dead Cells, etc. make big use of experimental techniques and the implementation of shaders and have achieved great success in the game industry.

Schedule

What's next?

contacting Prof. Stamm as advisor

planning out the practical project (what do I want

to show? and how? what will the theme be?

what will be key mechanics of the “game”? etc.)

collecting experience at my upcoming internship

at Mucho Pixels

Other preparations:

educating myself on the technical knowledge for
implementing shaders etc.

preparing pre-programmed scripts to speed up
unnecessary/unrelated working processes
(player movement, camera movement, etc.)