slide 1 | Title Slide

This is my introduction video for Aalto University's Game Design and Development program.

slide 2 | Self Introduction

Heya, my name is Herschel Pravin Pawar. This video has been recorded as part of deliverables for the admission process. Everything you see in this video—scripts, links, and images—are a part of a Typst document available freely on GitHub under a public domain licence.

slide 3 | Coventry University

I participated in Coventry University's Summer School for Game Development with Unity. The summer school concluded with a game jam, and my team got 2nd position.

The themes were Continuous Change and 2D Platformer.

We created Fractured Elements, featuring a player with cycling elemental powers. I focused on making the gameplay while my partner focused on the creative aspects of the game.

I'm proud that the player code I wrote was adaptable enough to be reused for the final boss and the high-level code was generic over weapons and elemental powers.

slide 4 | Game Maker ToolKit's 2023 Game Jam

I taught myself Godot by creating small games. I participated in GMTK's 2023 Game Jam.

The theme was Roles Reversed.

I designed a twist on Space Invaders: instead of killing aliens, the player controls a group of aliens fighting to survive against heroes.

The main game mechanic involved a random alien firing while space bar was pressed. This made it so the player had to choose between having predictability and having more health.

slide 5 | Bevy

Recently, I've been learning Bevy, a Rust-based ECS game engine.

So far, I've remade pong without using any tutorials. Currently, I'm using the pong codebase to learn how to make online multiplayer games.

slide 6 | Other

Some other projects I've worked on include VRCX Insights which involves data mining. It extracts friend circles by using data points of entering and leaving a room.

Another project is Booth Archiver, which compiles your Booth wish list into a simple, user-friendly Excel spreadsheet.

I've also created Krita Palette Generator, a tool that quantizes an image and generates a palette from it.

Other than programming, I also taught myself how to use Photoshop to create textures for my OC — Kait.

slide 7 | Current Interests

In no specific order these are some of the topics im interested in learning, you can pause the video to read about them in more detail:

- WGPU — an implementation of WebGPU spec in rust — to offload work to the gpu
- Cranelift — an alternative to LLVM — creating custom scripting languages for game engines
- Stateless Abstractions — Inspired by NixOS, functional programming, WGPU — Creating good abstractions which reduce conginitive load
- Technical art — bridging programming, art, and mathematics — I am facinated by gpus and shaders
- GPGPU — Hardware Acceleration — Offloading tasks and doing them in parallel
- Giving technical talks — Inspiring Others — Kate Compton inspired me, and I want to inspire others, just like her

slide 8 | Why Aalto

I actively participate in local Rust and queer meetups, always striving to create a welcoming atmosphere and support others. This collaborative spirit is something I value deeply and is one of the main reasons that the

multidisciplinary, project-based approach at Aalto resonates with me. I believe that innovation thrives when people from diverse backgrounds come together, and Aalto's environment offers the perfect space to exchange ideas and grow, both technically and personally.