

Introduction Video

University of Aalto

Herschel Pravin Pawar
December 21, 2024

= Self Introduction

= Who am I?



Herschel Pravin Pawar
sakurakat.systems



[GitHub:pawarherschel/UniOfAalto](https://github.com/pawarherschel/UniOfAalto)

= Coventry University
Summer School Game Jam

Fractured Elements

= Result

Criteria	Rank	Score*	Raw Score
Gameplay	2	3.286	3.600
Presentation	2	3.469	3.800
Creativity	3	2.739	3.000
Enjoyment	3	2.921	3.200

Table 1: Coventry University Game Jam Results

Continuous Change

2D Platformer

= Main Mechanic

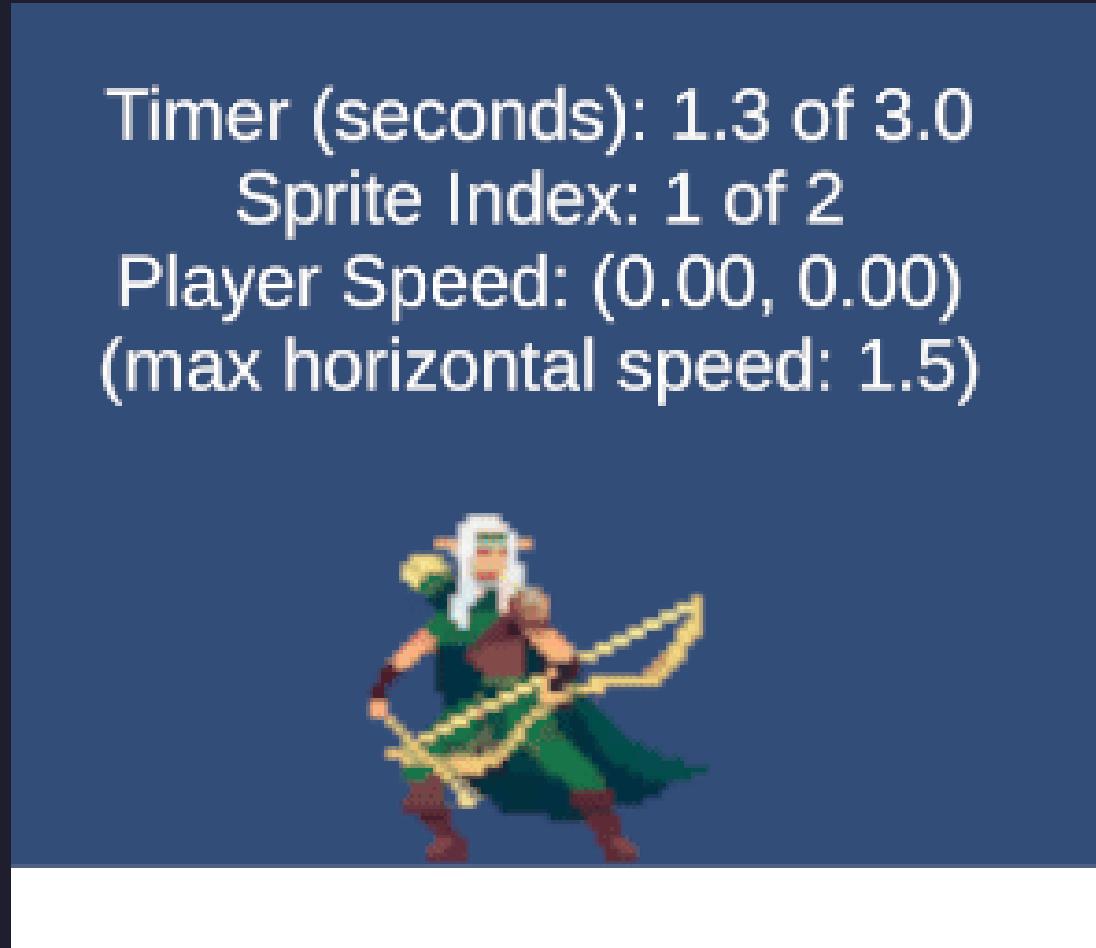


Figure 1: Hero Switching Mechanic

= The Team



Figure 2: Us

= Player Architecture

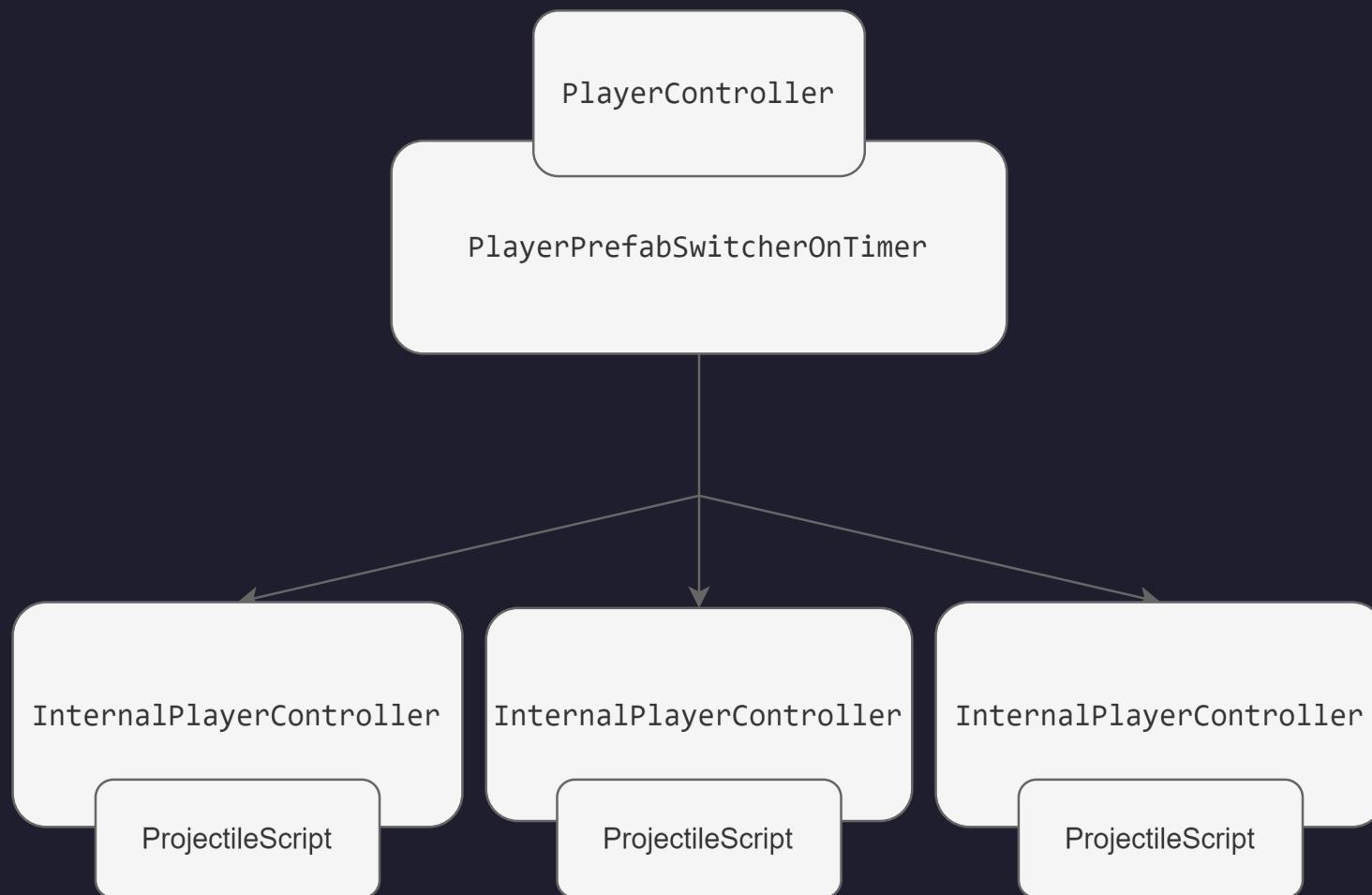


Figure 3: Player Architecture

= Game Maker ToolKit's
2023 Game Jam

Cosmos Conquerors

= Result

Criteria	Rank	Score*	Raw Score
Enjoyment	4296	2.237	2.583
Overall	4652	2.285	2.639
Presentation	4720	2.237	2.583
Creativity	4780	2.382	2.750

Table 2: GMTK's 2023 Game Jam Results

= Themes

Roles Reversed

= Gameplay



Figure 4: Screenshot

= Main Mechanic



Figure 5: All Invaders Shooting

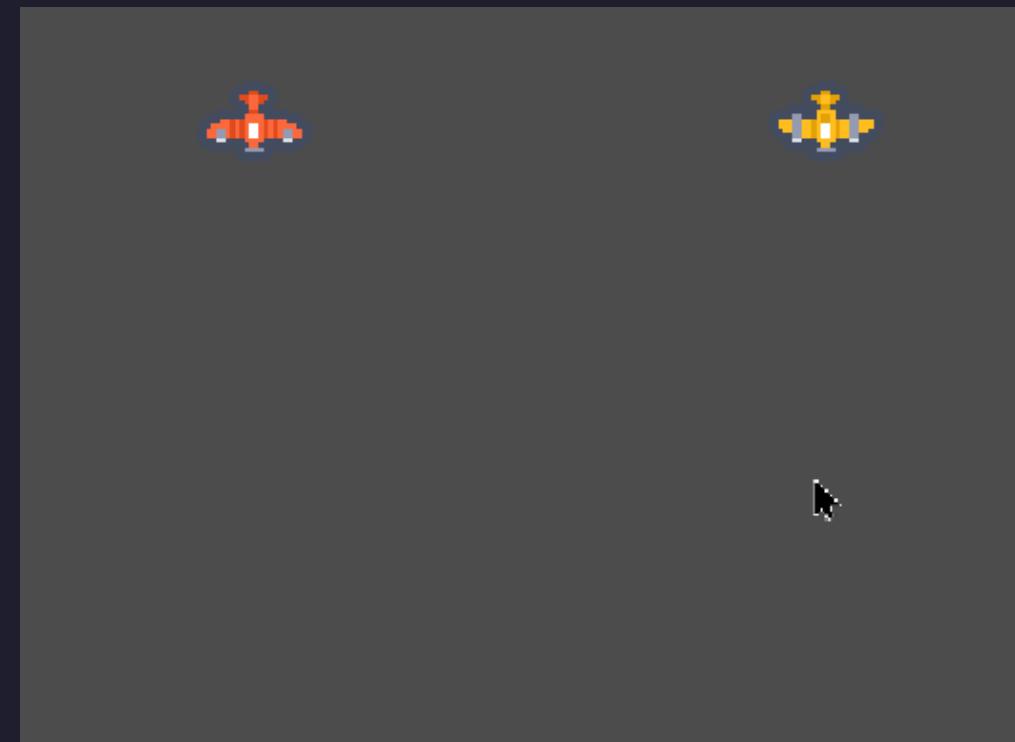


Figure 6: Two Invaders Shooting

= Bevy

Pong

= Other Projects

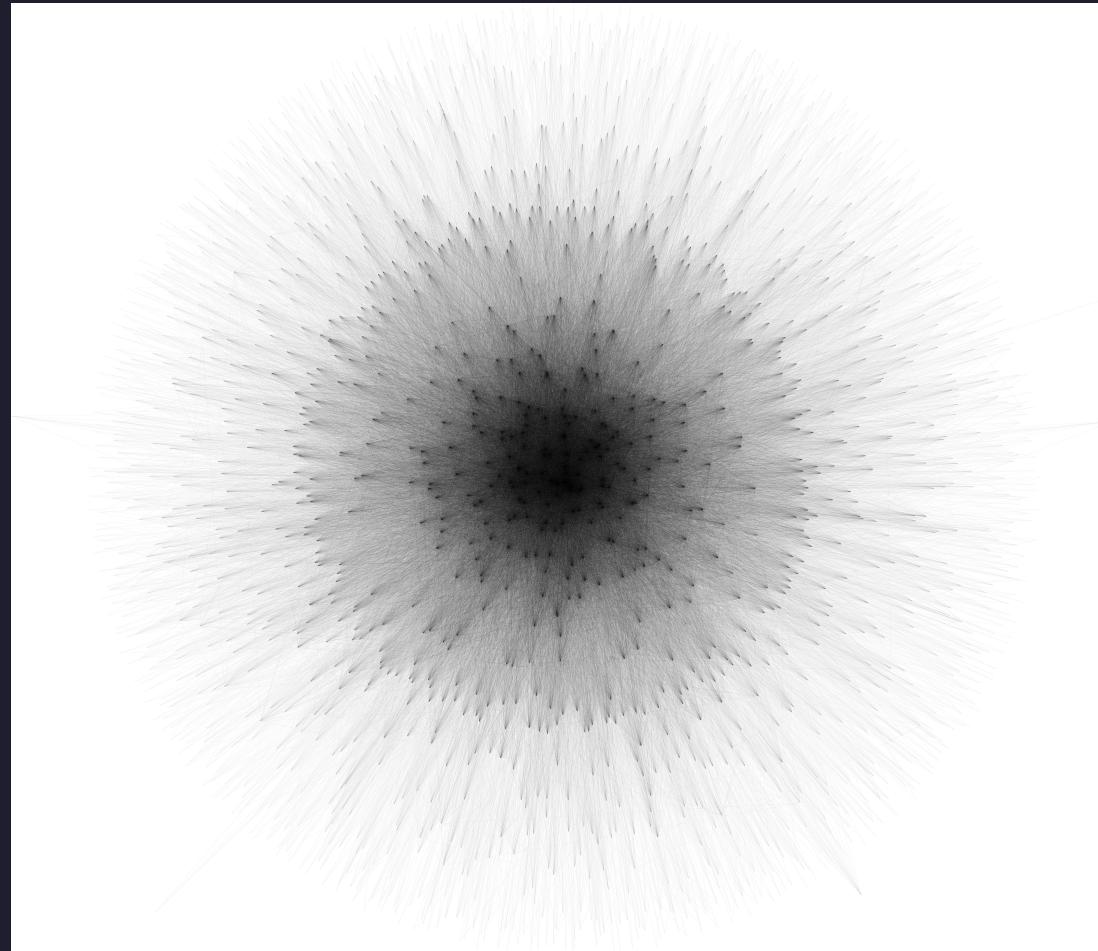


Figure 7: A *VERY* zoomed out view of the graph produced

= VRCX Insights

number of labels in the DOT file:

1835 labels

total lines in the DOT file:

102,560 lines

size of svg:

33.7 MB (35,402,018 bytes)

png output code (using typst):

```
#page(height: (7680pt * 5), width: (7680pt * 5))[
    #image("dot_edge_no_label.dot.neato.with_sand.svg")
]
```

size of png produced:

3.34 GB (3,597,062,134 bytes)

Booth Archiver

Figure 8: One of the spreadsheets generated by the program

= Krita/GIMP Palette Generator



Figure 9: Original Image



Figure 10: Quantized Image



Figure 11: Color palette generated with quantization level 5

= Kait



Figure 12: OC Kait - Made with the help of VRoid Studio

= Current Interests

= Current Interests

- 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 cognitive load
- Technical art – bridging programming, art, and mathematics – I am fascinated 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 (video)

= Why Aalto

= Acknowledgement

= Acknowledgement

- fivepb for helping me push through when I wasn't able to
- mlembug for going through the script
- Shashank and Divyesh for checking the presentation
- Henna for helping me practice and pushing me towards getting higher education
- and many many many other people

= Heavily Inspired by

- [Acerola](#) for the general vibes of the presentation
- [No Boilerplate](#) for the introduction

Made with ❤️ using

- [typst](#) [Typst](#) – an alternative to LaTeX – // sorry couldn't figure out how to do make the logo visible
- [投](#)[Touying](#) [Touying](#) – Slides
- [!\[\]\(8bc1da57d572189fc6bc5bc53de56bcc_img.jpg\) Catppuccin Theme](#) – Colors
- [JetBrains Mono](#) – General font
- [NotoSerif](#) — Font for more “creative” aspects

= Appendix

= List of Images

- Figure 1: Hero Switching Mechanic 
- Figure 2: Us 
- Figure 3: Player Architecture 
- Figure 4: Screenshot 
- Figure 5: All Invaders Shooting 
- Figure 6: Two Invaders Shooting 
- Figure 7: A *VERY* zoomed out view of the graph produced 
- Figure 8: One of the spreadsheets generated by the program 
- Figure 9: Original Image 
- Figure 10: Quantized Image 
- Figure 11: Color palette generated with quantization level 5 
- Figure 12: OC Kait - Made with the help of VRoid Studio 

= List of Tables

- Table 1: [Coventry University Game Jam Results](#)
- Table 2: [GMTK's 2023 Game Jam Results](#)



= Table of Links

pg no	Accompanying Text	Link Destination
	sakurakat.systems	https://sakurakat.systems
	GitHub:pawarherschel/ UniOfAalto	https://github.com/pawarherschel/UniOfAalto
	Coventry University Summer School Game Jam	https://github.com/pawarherschel/CovUniGJ2024
	Fractured Elements	https://pawarherschel.itch.io/fractured-elements
	Coventry University Game Jam Results	https://itch.io/jam/summer-school-24/rate/2856755

= Table of Links

pg no	Accompanying Text	Link Destination
	Game Maker ToolKits 2023 Game Jam	https://github.com/pawarherschel/GMTK2023
	Cosmos Conquerors	https://pawarherschel.itch.io/cosmos-conquerors
	GMTKs 2023 Game Jam Results	https://itch.io/jam/gmtk-2023/rate/2155150
	Bevy	https://bevyengine.org/
	Pong	https://github.com/pawarherschel/bevy-pong

= Table of Links

pg no	Accompanying Text	Link Destination
	VRCX Insights	https://github.com/pawarherschel/vrcx-insights
	VRCX Insights	https://github.com/pawarherschel/vrcx-insights
	Booth Archiver	https://github.com/pawarherschel/booth_archiver
	Krita/GIMP Palette Generator	https://github.com/pawarherschel/krita-palette-creator
	WGpu	https://wgpu.rs/

= Table of Links

pg no	Accompanying Text	Link Destination
	Cranelift	https://cranelift.dev/
	Kate Compton	https://www.galaxykate.com/
	video	https://www.youtube.com/watch?v=WumyfLEa6bU
	Acerola	https://www.youtube.com/@Acerola_t
	No Boilerplate	https://www.youtube.com/@NoBoilerplate
	Typst	https://typst.app/

= Table of Links

pg no	Accompanying Text	Link Destination
	Touying	https://touying-typ.github.io/
	Catppuccin Theme	https://catppuccin.com/
	JetBrains Mono	https://www.jetbrains.com/lp/mono/
	NotoSerif	https://fonts.google.com/noto/specimen/Noto+Serif
	Coventry University Game Jam Results	https://itch.io/jam/summer-school-24/rate/2856755

= Table of Links

pg no	Accompanying Text	Link Destination
	GMTKs 2023 Game Jam Results	https://itch.io/jam/gmtk-2023/rate/2155150