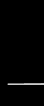# Video Game development in Lua using the LÖVE2d Engine

Overview of the Workshop

- Talk briefly about video game History

- Overview the common principles/workflow of video game development

- Walk through the basics of Lua and LÖVE2d

- Write some basic applications in LÖVE2d

- Finally we will make Pong!

Video game History

- Dates back to the 1950s where they were simple electronic games using the display as output

- 1970 first consumer video game released in arcades was Computer Space

- Followed by Pong in 1971 and the first console the Magnavox Odyssey

- Today video games are one the largest pieces of popular culture across the world

    - One of the largest markets in entertainment

    - One of the top 10 hobbies in the world!

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Video game Development Principles

- Conceptualize
  - Brainstorming, research, refinement
- Pre-Production
  - Storyboards, wire frames, mock ups
  - Game play loop, objectives, prodcution, pacing
  - Choosing an engine
  - Lore
  - Art style

- Production
  - Programming, art design, asset creation
  - Refining game play loop and inputs
  - Level design
- Testing
  - Beta testing
  - Feedback
  - Refinement
  - Accessibility
  - Playability

Video game Development Principles

- Launch
  - Marketing
  - Profit??
  - Advertisements
  - Crowdfunding

- Post launch support
  - Bug fixes
  - DLC
  - Community management

Tools of Game Development

- Engines
  - Unreal, Unity, Godot, LOVE2D
  - Languages: Rust, C++, C#, Lua, python, and more!

- Modeling
  - Blender
  - Asset Forge

- Image editing
  - Photoshop
  - Illustrator
  - Canva

- Assets
  - Kenney
  - Unity Asset Store
  - Open Game Art

- Sites
  - Gamedev.net
  - IndieDB
  - Gamedev undergound

- Education
  - Unity Learn
  - Unreal Tutorials
  - Youtube

Lua Basics

- Dynamically typed

- Interpreted language

- Used quite commonly for configurations, scripting, game dev, and much more!

- Demo/Learning Time!