# **Philip Straw**

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Portfolio: <a href="https://philcstraw.github.io/Portfolio/">https://philcstraw.github.io/Portfolio/</a>

Github: https://github.com/philcstraw

Game designer and self-taught software engineer with 15 years industry experience. I am an effective communicator and collaborator with great attention to detail and a drive for tackling ambitious problems. I thrive on delivering goals to a high standard and within challenger constraints. I have been responsible for content design and implementation for multiple industry-leading and award winning AAA games.

Games Shipped Little Big Planet ◆ Little Big Planet 2 & Move Pack ◆ Tearaway

Independent Games Released Linking • Dynoball

Games worked on: Dreams • Man of Medan • Jigsaw Jumble

## Skills

#### **Tools and frameworks**

- C# C++ C++/CLI LUA
- GLSL HLSL
- OpenGL Vulcan
- Unity Unreal Engine 4 Blueprints
- Dear ImGui Winforms WPF
- ◆ Visual Studio
  ◆ Render Doc
- Github Perforce Source Tree Jira
- 3DSMax Blender

#### **Technical Skills**

- Gameplay design and balancing
- Level design
- Event scripting
- AI behaviour authoring
- Visual scripting
- Cinematic design
- Environmental art
- Software engineering
- Performance analysis and optimisation
- Debugging
- Documentation and tutorials

#### **Soft Skills**

- Good communicator
- Team player
- Creative collaborator
- Quick learner
- Proactive
- Multitasking
- · Attention to detail
- Easy going

# Programming Projects

### C++ Game Engine

- 3D rigidbody physics Collision detection Spatial partitioning Assimp SDK file import and exporting
- Skinned mesh rendering Animation motion matching Animation retargeting 2D rigidbody physics
- Physically based rendering
  Deferred shading
  Shadow mapping
  Signed distance field rendering
- Marching cubes Jump flooding Text rendering HTC Vive integration Input handling
- Sound integration Custom file format serialization

#### **C# Music Player**

Audio playback ● ID3 tag editor ● Asynchronous file loading ● SQLite

## Work History

#### **KytheraAI** AI Developer

Dec 2021 - Present, Unity - C++

- Responsible for the development and management of a plugin that enables Unity's scripting system to interact with Kythera's proprietary C++ AI path finding engine.
- Maintained code in Unity and Kythera to facilitate interoperability between C# and C++.
- Built Unity components and user interfaces that interact with the C++ library.
- Designed and built levels to test and demonstrate Kythera's AI features.
- Optimised debug rendering to achieve real-time frame rates.
- Liaised with clients to address queries, gaining a better understanding of their requirements and constraints in order to help them achieve their goals.
- Collaborating with other engineers to revise and improve implementations.
- Wrote comprehensive documentation and tutorials for the plugin's available features.

#### **Independent Developer**

2019-2021 | Unity-Android

- Worked on 3 mobile games on all aspects of game creation from prototype to completion, including gameplay design, difficulty balancing, art, UI, UX, audio and asset management.
- Wrote shaders and developed custom UI tools to facilitate experimentation and faster iterations times.
- Doing performance optimisations for Android devices.
- Running tests for multiple Android devices to ensure maximum compatibility.
- Published 2 of the finished games to the Android play store, and pushing updates post release.
- Google AbMob and in-app purchase integration.

#### **Super Massive Games** Contract Level Designer

2018-2019 | Unreal Engine

- Level designer on Super Massive Game's branching narrative game Man of Medan.
- Added motion captured animations, creating cinematic interactions and responsible for overall maintenance for a number of levels.
- Authoring cameras to achieve a cinematic feel that invokes tension, fear and mystery.
- Helped with localisation, bug fixing, network testing and participated in peer reviewed feedback.

#### Sony Media Molecule Level Designer

2011 - 2018 | PlayStation 3-4-Vita

- Worked closely with directors to implement levels and gameplay that spanned multiple genres and targeted all age groups across 3 of their published games.
- Responsible for cinematic and tutorial design.
- Collaborated with team members across all disciplines to aid in the creation of customer facing tools for user generated content.
- Conducted user tests and implemented feedback.
- Quality assurance test for gameplay, networking and user generated content tools.