

Portfolio: <https://philcstraw.github.io/Portfolio/>

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Game designer and self-taught software engineer with 14 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](#)

## Tools and frameworks

- C# • C++ • C++/CLI • LUA
- GLSL • HLSL
- OpenGL • Vulkan
- Unity • Unreal Engine 4 • Blueprints
- DearImGui • Winforms • WPF
- Visual Studio • RenderDoc
- 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

## 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.

## Personal Projects

### **C++ Game Engine**

3D Rigidbody physics • Collision detection • Spatial partitioning  
Assimp SDK file import and exporting  
• Skinned mesh rendering • Animation motion matching  
Skeleton retargeting • 2D Rigidbody Physics • Physically Based Rendering • Deferred shading • Shadow mapping  
Signed Distance Field rendering  
Marching Cubes • Jump Flooding • Text rendering • HTC Vive Controller Integration • Input handling • Sound Integration • Custom file format serialization

### **C# Music Player**

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

## 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.

## Education

GCSE O Level Mathematics, English, Economics, Fine Art, Biology

## Qualifications

NVQ Level 2 Certificate in Customer Services

Word Processing, Access, PowerPoint, Excel, Equals Level 1

European Computer Driving License Level 1