

SOFTWARE DEVELOPER, DESIGNER AND CREATIVE

BIO

A highly experienced and multidisciplinary software developer with a demonstrated history of working across a wide range of platforms. I have dedicated my career to creating impactful interactive solutions applying videogame technology to non-traditional areas, applying narrative and panache to traditionally drier educational experiences. I have a track record of producing and shipping high quality products with attention to detail and technical excellence.

Working in teams of varying sizes, I've adapted to fit a wide range of roles giving me a breadth of experience in areas beyond my core skill-set, such as UI and graphic design, testing, writing, level design, video production, sound design and motion capture direction. As a self-driven creative, I have worked on a number of projects outside of my employed roles, contributing to game projects as part of volunteer team LunchHouse and creating my own merchandise brand whiskerwire_.

Whatever the field, I enjoy contributing to a team that values creativity and aims to push boundaries to deliver high quality results.

EXTENDED PORTFOLIO AVAILABLE AT CAYLEE.DEV

TARGET PLATFORMS

iOS & iPad OS	Steamworks
Android	Arduino
PS Vita & PS4	RPi2040
Windows	ESP32
macOS	Twilio
WebGL	AWS Amplify
PicoVR VR	Sky Q & Glass
Meta Quest VR	Amazon Fire
Cardboard VR	ROLI Piano (+ M)
Steam VR	ROLI Airwave

DEVELOPMENT TOOLS

Unity Engine	C++
Unreal Engine	C# (.NET)
Source Engine	JavaScript
PlayCanvas	HLSL
React Native	ShaderLab
AWS (Lambda, API Gateway, GraphQL)	VFX Graph
Apache Cordova	MicroPython
Git	ARCore & ARKit
Perforce	MaxstAR
	Littlefoot

EMPLOYMENT HISTORY

LUMINARY ROLI SOFTWARE ENGINEER (ROLI LEARN) JUNE 2024 - PRESENT FULL-TIME

- Implemented Playground, a free-play sandbox mode.
- Contributed to integration of ROLI Piano and Airwave.
- Worked on new learning modes, including Guided Practice and Airwave Learn Mode.
- Implemented in-app Airwave Calibration flow.
- Worked closely with design, QA and other teams.
- Regularly communicated with users via official Discord.
- Presented Airwave and Piano at The NAMM Show 2025.
- Contributed to future development planning, general app maintenance.

LUNCHHOUSE SOFTWARE SENIOR DEVELOPER/PROJECT LEAD JULY 2019 - PRESENT VOLUNTEER

- QA and dev support for 'G-String' released Oct. 2020.
- Senior developer on Source Engine iteration of 'PUNT'.
 - Authored visual effects in HLSL: separable blur, pseudo-volumetric planar fog, interior mapping, caustics, and cubemap correction supporting complex volume types.
- Led design for final "breakout" section and boss battle.
- Managed issue tickets & project scope with project leads.
- Heavily contributed to the internal production toolchain.
- Project lead on Unity remake/port of 'PUNT' following contractual issues with original engine provider.






whiskerwire_ OWNER/DESIGNER/LEAD DEVELOPER OCT 2023 - PRESENT PART-TIME

- Led development of custom ESP32 digital badge board, firmware and paired mobile app (iOS/Android).
- Designed entire product range, including digital badges, NFC pin badges, stickers, and lanyards.
- Authored websites and managed social presence.
- Personally manufactured majority of products on-site.
- Managed ordering of product, company finances.
- Operated seller table at various conventions.



FRIDAY SUNDAE STUDIO DEVELOPER APRIL 2019 - MAY 2024 FULL-TIME

- Co-lead programmer on pre-alpha phase of 'There Are No Ghosts At The Grand' (2022-24) using Unity HDRP.
 - Contributed to initial/early story and game concepts
 - Lead UI dev., incl. localization, control icons and subtitles.
 - Authored VFX, NPC AI, gameplay, SFX, mocap direction and 'project glue' meta elements (scene loading, etc).
- Localization and support for a suite of 17 games for Warner Bros. Discovery, with a combined lifetime install count of over 250 million. (iOS/Android)
 - Taken over from previous developers for EMEA region
 - Responsible for Unity upgrades, RTL layout conversion, modern device support, replacement of deprecated plugins, new content and general maintenance.
 - Shipped 4 games for McDonalds in-restaurant tablets featuring modified UI and progression.
 - In-App Purchases and build management for 'Toon Cup'.
- Principal developer on several original internal projects.
- Brought in as a "fixer" to solve tricky project issues.
- Assisted in testing, level design and delivery for web-based projects for Sky UK, WBD and BBC
- Video producer for pitches and internal demos
- Principal developer on 11 original client projects (Imperial War Museums, British Museum, Warner Bros. Discovery, BBC, more)
 - iOS, Android, Windows, macOS, Web, Meta Quest and Cardboard VR.
 - Responsibilities included mo-cap direction and cleanup, 2D/3D art, UI design, 3D scanning, sound design, testing, documentation, video production, writing and research.
- Managed git repos., IT infrastructure, off-site backups, and assisted with Cyber Essentials Plus certification.
- Interviewed & performed tech. tests as part of hiring.
- Acted as co-producer on several projects, assisting with pricing, project docs and meeting clients.

EMPLOYMENT HISTORY (continued)

 THINKORCHARD	VR DEVELOPER	MARCH 2019	CONTRACTOR
<ul style="list-style-type: none">Produced a Unity-based staff safety training application for use across Android, Web and PicoVR G2.<ul style="list-style-type: none">Implemented flow-graph system for authoring user-flow whilst swapping out visual scenes per device type.		<ul style="list-style-type: none">Authored a custom build system to support sub-platform build targets not natively supported by Unity.Implemented tools for collection of session data	
 REACH ROBOTICS	UNITY DEVELOPER	AUG 2018 - JAN 2019	FULL-TIME
<ul style="list-style-type: none">Developer for the relaunch of the MekaMon app on iOS and Android alongside the Berserker V2 robot, released in October 2018.<ul style="list-style-type: none">Created a custom audio solution for gameplay, including animation-driven simulation of robot movement sounds.Implementation of various UI elements.Contributed to the internal editor toolset.		<ul style="list-style-type: none">Developer on post-2.0 updates for the MekaMon app<ul style="list-style-type: none">Added 'AR Survival', a wave-battle feature which integrates with the new 'AR Free Play' mode.Authored a seasonal event framework and implemented December holiday season eventsPorted the MekaMon multiplayer networking stack from UNET to Mirror as part of platform upgrades.	
 PLAYWEST	DEVELOPER	JAN 2018 - JUNE 2018	CONTRACTOR
<ul style="list-style-type: none">Co-developed the physics-based construction game "Shelter Titans" for UWE's Civil Engineering Department<ul style="list-style-type: none">Implemented physically-simulated wind using Unity Jobs		<ul style="list-style-type: none">Created the game world, art-style and user interfaceIntegrated storm effects, altering world lighting, particles and background cloth simulation.	
 CARTOCONSULT	DEVELOPER	JUNE 2017 - DEC 2017	CONTRACTOR
<ul style="list-style-type: none">Development of prototypes for client pitches, including early dev. of a B2B AR app based on the Unity MapBox SDK.			
 POINTCUBE	UNITY DEVELOPER	JUNE 2017 - SEP 2017	CONTRACTOR
<ul style="list-style-type: none">Contributed to unreleased Unity B2B application for iOS, Android, macOS and Windows.<ul style="list-style-type: none">Instituted and led scrum development practices.		<ul style="list-style-type: none">Locally hosted git server and IT infrastructure.Implemented user data serialization, key mapping, localization, undo system and PHP licensing server.	

EDUCATION

 UNIVERSITY OF THE WEST OF ENGLAND	2013 - 2018	UNDERGRAD	POSTGRAD
BSc Games Technology (sandwich) - 1st class Dean's Award for Academic Excellence (2015) CSCT Best Creative Technology Project (2017)	MSc Commercial Games Development - Distinction		
 CLACTON COASTAL ACADEMY	2008 - 2013	GCSE	A-LEVEL
GCSE English Language - A English Literature - C Science - A Additional Science - A Maths - A	A/AS Level BTEC L3 Diploma in IT - Double Distinction★ BTEC L3 Subsidiary Diploma in Media - Distinction★ A-Level Media - B AS Critical Thinking - C		

OTHER PROJECTS AND SKILLS

- A keen photographer and videographer, part of the volunteer AV team at a major UK convention.
- Makes physical things as well as digital, such as custom PC cases, accessories, and costume pieces with a variety of techniques including laser cutting, FDM and Resin 3D printing, and design in Autodesk Fusion.
- Presented publicly at Develop:Brighton Conference 2015, PC Gamer Weekender 2017 and The NAMM Show 2025.
- Negotiated major software licensing, IP and release agreement with Valve Corporation to develop a standalone Portal game 'Outside Influence' for release on Steam.
- A passionate advocate for game and media preservation, previously leading a podcast archival project.
- Won a level design contest in 2014 with 'Portal: Skyline' and was featured on Gamespot's CS:GO Map Highlight.
- Released an open source fork of Graphics Synthesizer Mode Switcher homebrew for PlayStation 2 which adds support for saved configurations to the memory card.
- Created a number of other considerably too high-effort gag gifts, including a restored and hand-engraved iPod Mini, figurine, custom LEGO set and a Twilio-powered hotline number.

REFERENCES

Available upon request