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RohinKnight.com/Portfolio

ROHIN KNIGHT
TECHNICAL ARTIST

SUMMARY

With over a decade of experience in the games industry and software development, I specialize in solving complex technical challenges and building high-quality tools and systems for game studios and creative teams.

I've worked across Unity (C#), Unreal Engine (C++, PCG, Blueprints, Niagara), and custom proprietary engines, delivering everything from procedural generation tools to optimized render pipelines, shaders, and cross-platform deployments (iOS, Android, WebGL, Steam, Quest 3 Mixed Reality).

I also bring experience with technical art scripting (Photoshop, Maya, Blender), Web3 development (Solidity, Hardhat) and mobile app engineering (iOS/Android).

Known for clear communication, mentorship, and complex problem-solving, I thrive on collaborating with teams to deliver polished, efficient solutions — whether building AAA VR experiences, mobile games, or internal tooling.

CAREER HISTORY

PLAYSIDE STUDIOS | Senior Technical Artist   02/2023 – 04/2025

- **Contributed to three major titles: Civilization VII – VR** (Proprietary C++ Engine), **Shattered** (Unity – Quest 3 Mixed Reality), and an unannounced AAA title (Unreal Engine), delivering key technical and artistic systems.
- **Designed and implemented a procedural spline tool in Unreal** (C++, PCG) that enabled level designers to rapidly place optimised collision walls, significantly improving workflow efficiency.
- **Engineered a real-time crack propagation system,** with precise control over crack formation and transition into shard fallout.
- **Created a torchlight simulation with custom real-time lighting** and dynamic flicker effects, providing high-quality lighting on performance-constrained platforms.
- **Built multiple LUT (lookup table) blending systems**, enabling nuanced visual grading and seamless transitions between in-game scenes.
- **Modified a VAT (Vertex Animation Texture) shatter shader** to ensure glass shards always fall to the ground regardless of height, while maintaining smooth, believable animations.
- **Developed a Fresnel-based object highlight effect** to support in-game interaction cues.

MYRIA | Senior Unity Engineer   03/2022 – 12/2022

- **Co-authored the Technical Design Document (TDD)** and played a key role in defining the game's foundational architecture, ensuring scalability and maintainability from the ground up.
- **Established and documented project-wide coding standards**, promoting consistency, readability, and long-term code health across the development team.
- **Led technical recruitment efforts**, interviewing candidates, delegating tasks and conducting code reviews to support the growth and performance of developers.
- **Resolved critical technical challenges**, including the implementation of an efficient world map display system, optimized pathfinding algorithms, and visually seamless water shader blending for town environments.

PIKPOK | Lead Technical Artist / Programmer   01/2015 – 03/2022

- **Led a two-person Technical Art team**, providing cross-project support and tooling for major titles including **Agent Intercept**, **Rival Stars Horse Racing**, and **Into the Dead 2**, while also contributing to live ops across over 10 shipped games.
- **Developed a scalable UI scroll grid pooling system** in Unity with multi-row/column layout support, now a core component for all new projects.
- **Created high-impact editor tools,** including a multi-prop placement system that drastically reduced level design time and an environment duplicator that streamlined asset setup across scenes.
- **Engineered a comprehensive suite of shaders**, such as soft masks with nesting and custom effects (e.g., water, skybox gradients, shield FX), optimised for mobile performance.
- **Upgraded legacy shaders and custom URP pipelines** by adding SpeedTree wind support, terrain height blending with texture packing, shadow fade, and fixing distant mesh lighting issues using vertex color.
- **Built an iOS Unity plugin for 3D Touch support** (prior to Unity's native implementation) to provide 3D touch controls for **Breakneck** on supported devices.
- **Automated Maya and Photoshop workflows**, including a studio-wide Maya script distribution system (presented at **NZGDC 2021**) and multilingual screenshot export tools via UXP plugins.
- **Constructed internal dev tools**, such as a Unity installer/sync app, changelog validation scripts, and a cross-category Play Store scraper (using Pyramid, Celery, and Redis) for competitive intelligence.
- **Delivered robust live ops support for legacy C++ titles**, resolving elusive bugs, upgrading ad networks, and maintaining critical build systems to extend game lifecycles and revenue streams.
- **Ported Breakneck to Gamblit**, integrating the SDK, implementing new UI and gameplay mechanics, and introducing new levels to enable the game's playability on Casino Floors.

EARLY CAREER HIGHLIGHTS

- Mobile App Developer, Bank of New Zealand
- Mobile App Developer, Harvest Your Data
- English Teacher (China)
- Website Developer, Catalyst
- C++ Developer, ConSit Systems Ltd

QUALIFICATIONS

B.I.T, Computer Programming, Wellington InstLtiute of Technology

B.A, Chinese Language & Literature, Victoria University of Wellington

Certified Agile Leadership Essentials, Scrum Alliance, Inc.

TECHNICAL SKILLS

Game Dev

Unity (VR/AR, iOS, Android, WebGL, Steam, Plugins & Editor Tools) | Render pipelines (URP) and shaders (Shader Graph, Amplify, HLSL) | Debugging and Profiling (Frame Debugger, RenderDoc) | Game Servers and Unit Testing | Unreal (C++, PCG, Tooling, Materials & Niagara) | Configuring CICD Servers

Tech Art

Photoshop, Maya & Blender scripting (Python, MEL, Qt) & standalone tools | Image Editing (Seamless Textures, Normal Maps, etc) | 3D Modelling & Rigging

Web3

Solidity Smart Contractss, Hardhat & Unit tests