






Rohin Knight

Programming | Tech Art

With over a decade in games and 6 years in web/mobile app development, I have a strong track record of delivering high-quality work and solving complex challenges. Passionate about finding solutions and helping my teams succeed.

Details

-  Location
Wellington, New Zealand
-  E-mail
rohin.knight@gmail.com
-  Portfolio
rohinknight.com/portfolio
-  LinkedIn
linkedin.com/in/rohinknight
-  Github
github.com/rohinnz

Skills

Soft Skills

- Complex Problem Solving
- Excellent Written and Verbal Communication
- Mentorship and Leadership

Game Development

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

Technical Art

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

Miscellaneous

- Web3 (Solidity Smart Contracts, Hardhat & Unit tests)

Education

- B.I.T, Computer Programming
- B.A, Chinese Language & Literature
- Certified Agile Leadership Essentials

Experience

- 2023-02 - 2025-04** **PlaySide Studios (playsidestudios.com)**
Senior Technical Artist
PlaySide Studios is Australia's largest game developer. I worked on 3 titles:
 - [Civilization VII - VR](#) (C++, proprietary engine)
 - [Shattered](#), (Unity – Quest 3 Mixed Reality)
 - Unannounced AAA Game (Unreal Engine)Some of my contributions:
 - Built an Unreal PCG wall spline tool, using custom Blueprint and C++ PCG Nodes.
 - Created a fake real-time lighting effect for torchlight, including a flicker effect for other light sources.
 - Built a 4-way LUT blending system for adjusting room lighting (also created a 2D slider component).
 - Created a 3D LUT system with blending.
 - Developed a solution for cracks forming on glass, which then transitioned into shards falling out.
 - Developed a Fresnel-based object highlighting effect.
 - Modified a VAT shatter shader to ensure glass shards fall to the ground regardless of height while maintaining clean animation.
 - (Details on Civilization VII - VR will be added post-release.)
- 2022-03 - 2022-12** **Myria (myria.com)**
Senior Unity Engineer
 - Associate lead programmer on [Moonville Farms](#).
 - Wrote TDD and designed initial architecture with lead programmer.
 - Interviewed candidates, delegated tasks and reviewed teams work.
 - Wrote important documents for the team, including coding standards.
 - Solved problems around world map display and pathfinding.
 - Solved multi-transition issue for the town water shader.
- 2015-01 - 2022-03** **PikPok (pikpok.com)**
Lead Technical Artist
PikPok (formerly Sidhe Interactive) is one of New Zealand's oldest and largest game studios. I worked as a programmer for three and a half years before transitioning into Tech Art, where I led a two-person team, providing tech art support across multiple projects.

Titles I worked on: [Agent Intercept](#), [Rival Stars Horse Racing](#), [Into the Dead 2](#), [Breakneck](#), [Breakneck - Gambit Gaming](#), [Rival Stars College Football](#), [I Am Monster](#), [Zombie Rescue Squad](#), [Four Letters](#), [My Cat Club](#), [Into the Dead](#), [Shadow Wars](#), [Dungeon Inc](#), [Rival Stars Basketball](#), [Flick Kick Football Legends](#), [Turbo Fast](#) and [Robot Unicorn Attack 2](#).

Unity Achievements:
 - Built a UI scroll grid pooling system capable of handling thousands of items. Included an auto-layout feature with support for items spanning multiple rows and columns. This package is now used across all new projects.
 - Built a 2D Soft Mask package with support for nested 9-slice masks. Optimised performance using shader variants precalculated some parts outside the shader to avoid shader branching on mobile.
 - Added SpeedTree wind support to a custom shader and created an accompanying editor tool to patch legacy SpeedTree assets.
 - Integrated Unity terrain height blending into a legacy terrain shader. Used the albedo alpha channel for height data to eliminate the need for an additional mask texture to reduce memory usage.
 - Backported shadow fade to a game using an older custom URP pipeline.
 - Fixed distant tunnel lighting in a project without baked shadows: modified shaders to use vertex color and built a Unity/Blender tool to apply vertex color to all tunnel meshes.

Experience (continued)

Unity Achievements (continued):

- Built a gradient skybox shader and set up Cinemachine cameras for a boss fight scene.
- Created several animation tools, including one for copying animation events with relative or absolute time scaling.
- Developed a game environment duplication tool that cloned Unity assets with materials and nested prefabs (using a combination of Unity editor scripting and Python).
- Built a multi-prop placement editor tool with adjustable brush size, random selection, rotation, scale, and more. Despite being editor-only, performance optimizations were implemented (e.g., using squared magnitude for distance comparisons).
- Created an editor screenshot tool that captured multiple resolutions across all supported languages.
- Built a custom iOS plugin for 3D Touch Support (before Unity had their own solution).

Maya and Photoshop Achievements

- Gave a presentation at NZGDC 2021: www.youtube.com/watch?v=rg0VOF-2TW8
- Updated Maya script distribution so scripts get compiled and zipped on CI Server. Also set up Sentry reporting and unit testing.
- Built a tool for bulk animation import, bake, playblasts, and export. Also added feature to save clip notes and search through all clips in projects and mocap library.
- Built multiple Photoshop plugins using UXP. The most complex one would export screenshots in multiple languages and ensure they were below a target file size.

Other Achievements

- Built Windows app to bulk install Unity versions with script templates and sync with Unity Hub. Tool included a self-update feature. Now used by everyone in Studio.
- Wrote npm script and pre-commit git hook for our Unity packages to enforce consistent namespaces, correct format for changelog updates.
- Built a Pyramid web scraper to track the top 200 apps in the Play store, in every category for every country. Used Celery and Redis for handling multiple scraper tasks on a high-end Amazon server.
- Built a company floor plan web app (Flask) during a lab day. Could drag and drop people and furniture. Previously someone had to constantly update a PSD document.
- Did a lot of Live Ops work on our legacy C++ titles, fixing hard to repro bugs, Upgrading ad plugins, configuring build settings, etc.

2013-08 - 2015-01	Bank of New Zealand (bnz.co.nz) Mobile App Developer Worked on mobile banking apps using Objective-C, C/C++, Java and Swift.
2011-04 - 2013-08	Harvest Your Data (harvestyourdata.com) Mobile App Developer Developed survey apps using Objective-C, C/C++ and Java.
2010	English Teacher in China
2008-02 - 2010-01	Catalyst (catalyst.net.nz) Website Developer Worked with clients to develop Drupal CMS solutions in Linux.
2007-10 - 2008-02	ConSit Systems Ltd C++ Developer Built Windows apps and plugins for Archicad (architectural tools).

For more details, please visit rohinknight.com/portfolio