

Neil Goodman

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A professional software developer with twenty-five years of commercial experience within the games industry, and in using game engines for non-gaming applications.

Sublime Digital

July 2018 – Present

Principal Developer | Project Mobius | Edify

Windows / C# / Unity / VR / Git / GitFlow

Project Mobius was an Innovate UK funded partnership with the University of Glasgow to create a suite of ten VR apps to be used in the classroom. My main responsibility was to design and build the Mobius Platform, a common codebase that all the applications are built on.

In addition, I have acted as sole developer on two of the apps:

- *Printing Press*: Teaches typesetting skills and operate a 15th century Gutenberg Press.
- *Disease Diagnostics*: Perform a Zika virus diagnosis in a molecular biology lab.

Reacting to the Covid-19 pandemic, the project has been re-engineered as Edify, a remote teaching tool to allow lessons to be taught from a VR environment, with students using video conferencing apps such as Zoom or Teams. I led development on various technical aspects while mentoring and leading the junior members of the team which was growing fast:

- Added networking with Photon to allow 'multiplayer' support and chat from a mobile app.
- Simulated VR, allowing the user to control a VR environment with only a keyboard and mouse.
- Working with a UI designer, completely overhauled all aspects of the user interface.

Lead Developer | Autodesk Forge Integration

Windows / C# / Unity / Git / GitFlow

A reusable .NET library for downloading and viewing 3D architectural models and BIM metadata from Autodesk's cloud-based Forge platform.

A standalone application to use the library, allowing the models and data to be viewed and manipulated in numerous 3D environments: Desktop, VR, and in Sublime's 'Shared Immersion' dome.

Skymoos Edinburgh

May 2017 – April 2018

Senior Software Engineer | KB13

iOS / Android / C# / Unity / Git / GitFlow

A free-to-play, third person deathmatch game for iOS and Android. Besides being involved in the gameplay coding, my responsibilities included:

- User interface, HUD, and character / weapon customisation.
- Tool pipeline for artists to manage and import customisable character assets.
- Mentoring junior developers.

Digimania

May 2002 – April 2017

Lead Software Engineer | Voxelize

Windows / macOS / C# / Unity / Mercurial

A 3D voxel editor that was designed to be easy to use yet powerful, featuring frame-based animation, layers and a VR viewing mode. I acted as the product designer and lead developer.

Lead Software Engineer | Minimaker

Windows / macOS / C# / Unity / Mercurial

A desktop app for creating and posing characters for 3D printers. It allowed customisation of a high-quality animated 3D character, fine manipulation of the limbs, and interactive painting before exporting as a 3D printable file.

Senior Software Engineer | Muvizu

Windows / C# / C++ / Unreal / WPF / Perforce

An animation suite using a modified Unreal 3 game engine to allow inexperienced and hobbyist animators to easily make short 3D animated videos using supplied characters and props.

Responsible for the initial architecture, integration with the Unreal 3 Engine, several iterations of the user interface (WinForms and WPF), and a cross-language API (UnrealScript, C++ and C#) to control and monitor Muvizu externally.

Binary 9 Studios

August 2001 - May 2002

Lead Programmer | Pilot Advance

Game Boy Advance / C / SourceSafe

A 2D physics-based action game in the style of Thrust and Oids.

Runecraft

April 2000 – August 2001

Programmer | Soldier of Fortune

Dreamcast / C / SourceSafe / SourceOffSite

Converted the Quake II engine and the game to the Dreamcast console. Responsible for the scripting system, inventory and weapons, and a new front-end menu.

Red Lemon Studios

October 1998 – April 2000

Programmer | Take the Bullet

Dreamcast / C / SourceSafe

Designed and developed a bytecode-interpreted scripting language for controlling cut-scenes and interactive game entities. It was reused in several released titles including the PC game of the sci-fi TV series, Farscape.

Programmer | Braveheart

Windows / C++ / SourceSafe

Initially brought onto the project to assist with the AI of vehicles and foot soldiers, the role grew to include development of the OpenGL and Direct3D rendering systems.

Digital Animations

June 1997 – October 1998

Lead Programmer | Modular game engine | Æther | TMmy

Windows / C++ / SourceSafe

Designed and built a modular game engine for prototypes of two entirely different games. This was a major challenge and involved developing physics, collision detection and handling, scripting and rendering modules.

Gremlin Interactive

August 1995 – June 1997

Lead PC Programmer | Reloaded

MS-DOS / C

Lead developer on the PC version. First experience of managing a junior programmer.

Programmer | Actua Soccer: OEM Edition

MS-DOS / C

Jointly responsible for developing OEM versions of Actua Soccer to showcase the 3Dfx, ATI and S3 hardware accelerated graphics cards that were still in development.

University of Teesside

September 1991 – June 1995

BSc (Hons) Software Engineering

My final year dissertation was to develop a game engine in the style of iD Software's Wolfenstein 3D for the Linux operating system, and a low-level VGA driver to support it.

Interests and Hobbies

I am a keen gamer, with a particular interest in quirky 2D or retro-inspired games. Recently, I've been working on a personal project to make a 2D game engine that blends old-school technologies like palette animation and pixel sprites with a modern Unity-style editor.

I play the guitar and previously managed a successful guitar teaching business in my spare time for several years.