

Hi there!



Mark B. Wahnish

Software developer, game programmer, and generalist specializing in Unity

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About me

I am a Unity programmer focused on creating highly engaging, unique, and performant experiences, specializing in VR. I have a wide range of knowledge and skills, from game programming and design to 3D modeling of assets, texturing workflows, editor tool development, and even mechanical design and engineering. If you'd like to work together, drop me a line!

Skills Unity 3D 9 years experience

- Proficient with using Unity for Oculus Rift and HTC Vive games.
- Familiar with Valve's SteamVR plugin.
- Experienced in developing custom editor tools for Unity.
- Highly familiar with Unity's C# API.
- Experienced in developing complex and responsive gameplay systems.
- Deeply understands Unity's 3D development pipeline and tools.

C# 8 years

- Proficient with Visual Studio, Monodevelop.
- Extremely familiar with the Unity C# API.
- Skilled at writing efficient, well-engineered code.

Git 8 years

- Understands good version control practices within an Agile methodology.
- Familiar with the benefits, pitfalls, and mitigations involved in making Git work for Unity in a team setting.

Blender 10 years

- Extensive experience in hard-surface modeling for games.
- Proficient with UV unwrapping tools and techniques.
- Experienced with various Blender workflows.

Photoshop 4 years

Experienced in using Photoshop for games, including development of UI elements, level decoration, and effects

Substance Suite 2 years

Working knowledge in using Substance Painter in texturing assets for games.

DevOps 4 years

- Experience in building automated tests and testing pipelines.
- Automation of architecture deployment using Ansible and Terraform.

Work The MITRE Corporation 2010 – 2019, software engineering in the service of the US Government

- Identified as a Subject Matter Expert (SME) in Unity, and used as a resource for several projects
- Shipped a VR training simulator built in Unreal Engine. Tasks included hard surface modeling, integration with NVIDIA's PhysX libraries, vehicle control code, and gameplay programming
- Extensive work in fields not applied to games, including DevOps processes, tools, and pipelines, automated testing, application architecture consulting, and robotics

ABXY Games 2010 – present, owner / sole developer

- Indie developer focusing on Unity VR Games. Currently working on Decommissioned
- Developed several Unity editor extensions, including Methodical, a C# interpreter
- Performed by-contract software development for several games-for-training systems. Many projects involved development of new capabilities that became mainline products and the conversion of pre-existing products to VR. Projects ranged from VR interaction systems, construction of custom Unity development tools and the creation of voice chat systems and custom multiplayer server/clients

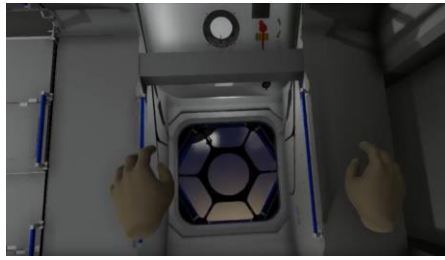
Education Kettering University 2010 – 2014

- Bachelors in Mechanical Engineering
- Minor in Computer Science

Georgia Tech 2017 – 2019

- Completed Master's in Computer Science

Games



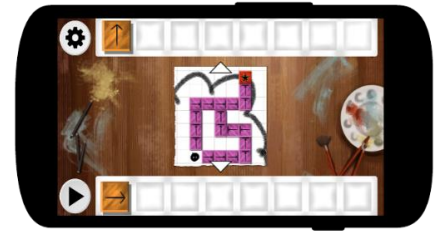
Decommissioned

Release: Anticipated Early Access, end of 2019

VR space station exploration and survival game

Roles: Solo engineer, artist, and designer

Key skills: Software / gameplay engineering, performance analysis and mitigation, 3D art, unwrapping, and texturing



Think

Release: Itch.io, Google Play

Mobile puzzle game for kids

Roles: Technical artist, gameplay programmer

Key skills: Software / gameplay engineering, shader development, UI implementation

Heist Party

Release: Tentatively, Fall 2020

Heist party is a couch co-op party game. Plan a heist... Steal some stuff... Betray your friends!

Roles: Solo engineer, artist, and designer

Key skills: Software / gameplay engineering, multiplayer design, performance analysis and mitigation, 2D and 3D art

Tools and Systems

Universal Identifiers

Release: Unity Asset Store – soon

System that supplants Unity's Resource system, providing generated, hard-coded references to project assets and scene instances

Roles: Solo system designer and software engineer

Key skills: Software / systems engineering

Stately

Release: Unity Asset Store – soon

Code-based state machine library for Unity, with tight editor integration. Battle-tested throughout several projects

Roles: Solo system designer and software engineer

Key skills: Software / systems engineering

Chimera

Release: Internal Tool

Performant, dynamic multi-threaded mesh batching/combination system. Chimera seamlessly builds combined meshes on the fly – meshes can be added and removed at will, respecting LODs, materials, etc.

Roles: Solo System designer, software engineer, technical artist

Key skills: Software / systems engineering, coding for performance

Methodical

Release: Unity Asset Store

Editor extension for Unity providing a C# interpreter (REPL) for Unity scripts

Roles: Solo system designer and software engineer

Key skills: Software / systems engineering

Reflex

Release: Obsolete due to new Unity input system

Flexible multi-platform input manager for Unity. Reflex replaces Unity's input system, providing easy controller mapping, extensible controller types, and easy multiplayer support

Roles: Solo system designer and software engineer

Key skills: Software / systems engineering

Remesh

Release: Internal tool

Editor tool complementing Unity's Blender pipeline. Remesh allows the user to selectively hide meshes within a Blend file from the Unity importer, keeping their Unity Projects clean and free from placeholder objects, empties, and other non-essential objects.

Roles: Solo System designer, software engineer, technical artist

Key skills: Software / systems engineering, knowledge of Unity's Asset pipeline