

# Matthew Davey

A veteran game developer with over 20 years of experience in and around the games industry, having shipped over 135 projects. Deep history with [Unity](#), recognized as the go-to solutions provider for complex problems, both native and managed. Experience working with [Unreal Engine](#) at a core level, and a contributor to the codebase and other open-source projects.



Matthew co-founded [Greathorn Games](#), a video game studio, in 2024, building on his experience founding and operating [dotBunny](#), a co-dev studio for over 14 years. In June 2016, Matthew founded the [PTBO Game Jam](#), a not-for-profit event that engages the local community with the video game industry to form long-term relationships.

Matthew holds positions on advisory boards for game development-related programs at various educational institutions and continues to produce industry-recognized open-source tools.

## Experience



### [Greathorn Games](#)

Permanent Full-time | 2 years+

#### CTO & Co-founder

Apr 2024 – Present | 2 years+

VC-backed studio creating memorable cooperative gaming experiences.

- Project NightOwl — Studio's first game.
  - Built out project and supporting services, the "[Epic Way](#)".
  - Areas of primary responsibility include engine (UE5) support, networking / multiplayer support, platform support, systems architecture, game flow/bootstrap, and UI.
  - Ad-hoc development on gameplay systems (timeline, objectives, actor pooling, etc.).
  - Custom PCG elements to aid with game-space procedural generation.
  - Developed a composite-based BuildGraph system.
  - Established iterative commit-to-steam build push time of <10 minutes.

- Designed and managed the company's IT/UE infrastructure.
  - Support a remote-first company ethos of hardware and software for developers.
  - Deploy-anywhere Docker pattern allowing for full service replacement within minutes of any outage.
  - Region-based caching and traffic steering endpoints.
  - Optimized blend of cloud and on-premise solutions.
  - Customized Horde deployment, along with supporting services (UGS, Zen, UBA).
  - Developed custom ad-hoc tooling to support numerous build-related functionality: Steam deployment, Steam authentication-caching, etc.



## **Bonfire Studios**

**Contract Full-time** | 10 months

### **Principal Software Engineer**

Mar 2024 – Dec 2024 | 10 months

Led a small team of developers forged from my old Unity team. Focused intently on transforming Unity into a modern, AAA-worthy engine. Developed novel solutions to performance problems within both the runtime and author-time environments. Worked closely with Bonfire leadership to support ongoing development and production efforts.

- Arkheron (Project Torch)
- Unity HPE — High Performance Edition



## **Unity**

**Permanent Full-time** | 3 years 6 months

### **Principal Software Architect**

Aug 2022 – Feb 2024 | 1 year 7 months

Work with executive leadership, internal R&D, product stakeholders, and external game studios on Unity's vision and strategic development. Drive alignment on improving Unity by engaging with internal teams and developing novel technologies collaboratively or independently. Provide leadership and mentorship to the Emerging Technology organization.

- ET Technical Director on Arkheron (Bonfire Studios).
- Provide technical direction on internal projects and client engagements.
- Work with leadership in areas of performance evaluation and employee growth.
- NDA platform involvement.
- Create, maintain, and deliver bespoke versions of Unity.
- Developed and implemented cross-company coding standards with an early feedback loop.
- Design, develop, and ship features — most recently, `Object.InstantiateAsync` !
- Provide ad-hoc bug resolution throughout the Unity ecosystem.

aka IC9 Principal Engineer

### **Lead / Staff Software Developer**

Sept 2020 – Aug 2022 | 2 years

Joined the small (but mighty) Advanced Technology Group inside Unity's then Professional Services division to explore creating novel technologies based on user needs and the team's industry experiences.

- Architect of the Engine Conversion Toolkit — Automated conversion of Unreal Engine 4 & 5 projects to Unity with live editing from UE.

- Helped implement and extend a Python-esque virtual machine inside the Unity runtime on all platforms.
- ET Technical Director on Arkheron (Bonfire Studios).
- Led small strike teams to resolve embattled service engagements in feature and optimization-related work.

aka IC8 Staff Engineer



## **inXile Entertainment**

**Contract Full-time** | 1 year 1 month

### **Lead Console Engineer**

Sept 2019 – Sept 2020 | 1 year 1 month

Primarily focused efforts on Wasteland 3 (Unity/C#), directing optimization and console development. Providing high-level engineering direction, planning, support, education, and mentorship.

#### **Wasteland 3**

- Designed and implemented a managed update system.
- Refactor game systems into task/job-based solutions.
- Created best practices for optimized rendering and gameplay systems.
- Collaboratively designed and developed an automated texture management system.
- Identified and corrected bottlenecks with Wwise implementation.
- Developed robust gameplay tooling for game designers.
- Built efficient build pipelines supporting multiple platforms.



## **dotBunny**

**Permanent Full-time** | 14 years 4 months

### **Founder / Technical Director**

Jun 2006 -Sept 2020 | 14 years 4 months

Managed and ran day-to-day operations for a group of highly skilled industry contractors. dotBunny provided white-label professional services to various clients in and around the games industry.

*The company is sleeping.*



## **OtherSide Entertainment**

**Contract Full-time** | 1 year 4 months

### **Principal Engineer**

Dec 2018 – Aug 2019 | 9 months

Worked with multiple teams on numerous initiatives, including an Unannounced Project (UE4/C++) and System Shock 3 (Unity/C#). Providing high-level engineering direction, planning, support, education, mentorship, and staffing advice.

#### **Thick As Thieves**

- Implemented a best-practices custom Unreal Engine 4 build with UGS pipeline support.
- Supported art, design and development team throughout the transition process to Unreal.
- Designed and implemented a multi-game framework with automated testing (TDD).
- Collaboratively designed and developed unique and innovative cooperative multiplayer mechanics.
- Rapidly developed early gameplay prototype in Unity.

### System Shock 3

- Wwise integration development and support, including custom occlusion and obstruction system design with dynamic portal functionality.
- Environmental lighting and mesh renderer optimizations and support.
- Additional engineering tasking.

### Miscellaneous

- Developed relations with vendors to support collaborative technology sharing.
- Designed and implemented a multi-stream, multi-project Perforce infrastructure.
- Designed and implemented a TeamCity CI build system.
- Implemented asset naming conventions and coding standards.
- Overhauled office network infrastructure to support future growth (UniFi).

## Senior Engineer

May 2018 – December 2018 | 8 months

Engaged to provide audio integration development and support. Responsibilities quickly expanded to refactoring and owning numerous systems on the project, transitioning into a senior role supporting the team as needed on Underworld Ascendant (Unity/C#).

### Underworld Ascendant

- Designed and implemented a post-launch save game system.
- Implemented full world state persistence across all levels in the game.
- Created dynamic lighting and systems streaming solutions, allowing for large, singular levels.
- Lead performance/optimization strike team.
- Improved quest system/tooling to be more designer-centric with improved flexibility and workflows.
- Optimized existing audio integration to prevent runtime hiccups.
- Developed robust tools for game designers.

### Miscellaneous

- Developed a recommended frame budget for use with console and pc deployment targets.



## Fleming College

Contract Full-time | 5 months

## Partial-Load Faculty, School of Trades & Technology

Sept 2017 – Jan 2018 | 5 months

Worked with a local post-secondary institution to alleviate a staffing challenge. Collaboratively worked with the learning design support team, creating course content which was both engaging and relevant. Course load included Operating Systems Theory, Advanced Operating Systems and Hardware Interfacing.

### COMP237 – Operating System Theory

- Prepared and delivered relevant modernized lecture materials to students.
- Designed and administered practical lab experiences focusing on hireable skillsets for students.
- Planned and developed course content to meet regulatory specifications while focusing on real-world experiences.

### COMP500 – Advanced Operating Systems

- Administered practical labs.
- Worked with the administration on creating a system to mitigate plagiarism.

## COMP551 – Hardware Interfacing

- Administered practical labs.
- Worked with the administration on creating a system to mitigate plagiarism.



## inXile Entertainment

**Contract Full-time** | 2 years 7 months

### Systems & Integration Engineer

May 2014 – Nov 2016 | 2 years 7 months

Initially engaged to provide audio integration development and support. Responsibilities rapidly expanded to encompass narrative and UI-based systems and additional engineering solutions were provided as needed for Torment: Tides of Numenera (Unity/C#).

#### Torment: Tides of Numenera

- Created a full-stack custom Wwise integration with real-time in-editor previewing that did not require PIE.
- Designed and implemented a modular UI system with cascading ownership retention.
- Designed and implemented an infinite text system allowing for unlimited narrative length.
- Render pipeline optimizations and development support.
- Asset database load-time optimizations.
- Optimizations and development support for console and PC deployment targets.



## Aspyr Media

**Contract Full-time** | 3 months

### Integrations Engineer

May 2016 – Jul 2016 | 3 months

Hired to create a custom audio integration for Wwise into an existing project with tight performance requirements. Seamlessly worked with the existing audio team to identify their needs and provide solutions.

#### Cancelled Project

- Wwise integration development and support.
- Designed and implemented a custom rapid callback system for frame-dependent sound adjustments.



## QLine Solutions

**Permanent Full-time** | 11 months

### Development Lead

Aug 2007 – Jun 2008 | 11 months

Hired to modernize an aging enterprise healthcare management solution while providing direction, planning, and mentorship to existing staff. Designed and developed additional targeted software offerings and positioned the company for future acquisitions.

#### QCARE

- Architected a .NET version of the existing enterprise software solution.
- Designed and implemented a .NET common framework across multiple programs.
- Deployed asynchronous client/server operations and connectionless operations.
- Migrated legacy VB6 codebase to .NET code

- Developed migration plans for the existing customer base.
- Designed and developed a plugin structure to support additive modules (QTime).
- Designed and developed PIPEDA-compliant mobile/PDA integration.

#### QTree

- Designed and developed plant growth management software collaboratively with farming community representatives.
- Implemented self-updating client-facing mobile applications with an off-site data warehouse.

#### Miscellaneous

- Implemented asset naming conventions and coding standards.



## Best Buy

Permanent Full-time | 6 months

### Software Developer

May 2007 – Oct 2007 | 6 months

**Acquired Speakeasy** in May of 2007. Continued to maintain existing development-focused position. Worked with a broader client base to create GDx-based solutions for their needs. Responsible for integrating GDx technology within Best Buy's offerings.

- Designed and documented the next iteration of GDx systems.
- Produced extensive internal documentation of GDx infrastructure for knowledge transfer purposes.



## Speakeasy

Permanent Full-time | 2 years 11 months

### Software Developer, Managed Services

Jun 2004 – Apr 2007 | 2 years 11 months

Acquired GameDaemons division from ProHosting Inc. in June of 2004. Transitioned into a systems development role during purchase restructuring. Responsible for architecting and implementing managed systems based on previous GDx development work and onboarding new staff.

- Design and implementation of a Visa CISP-certified web-based point of sale system and infrastructure.
- Worked with clients to white-label GDx infrastructure.
- Designed and implemented a cross-platform ticket monitoring application for engineers.
- Development of FileCloud



## ProHosting

Permanent Full-time | 1 year 5 months

### NexGen Development

Feb 2003 – Jun 2004 | 1 year 5 months

Acquired GameDaemons Inc. in February 2003. Worked with expanding team to identify workflow optimizations and automate network administration tasks. Continued supporting the founder in the company's day-to-day operations and supported the rapidly expanding customer base.

- Liaison for numerous game studios, serving as a primary point of contact for development support.
- Developed web-based hardware management infrastructure (GDx) with an automated point-of-sale system.

- Sponsored numerous emerging e-sports events.



## GameDaemons

Permanent Full-time | 9 months

## NexGen Development

Jun 2002 – Feb 2003 | 9 months

As the company's first hire, I was responsible for a variety of development tasks and supporting the increasing customer base. Worked directly with the founder to position the company for investment and future acquisitions.

- Worked with numerous game studios to optimize the netcode for online competitive play.
- Optimized operating systems at the kernel level for game server runtimes.
- Developed a web-based reservation system with notification and reprioritization capabilities.
- Performed system administration-related tasks across an internationally distributed network of high-performance servers.

## Education



### Trent University

2003 – 2007



### Loyola Catholic Secondary School

1998 – 2002



### St. Mark Catholic Elementary School

1988 – 1998

## Volunteering



### PTBO Game Jam

Jun 2016 – Present | 10 years+

## Organizer & Founder

The PTBO Game Jam is a not-for-profit event managed by industry professionals and hosted in beautiful Peterborough, Ontario, Canada. It is a gathering of people from all walks of life, from seasoned game developers and students just entering the industry to hobbyists and enthusiasts eager to engage and see what they can produce in a short timeframe.



## Loyalist College

Jun 2010 – Present | 15 years+

### Program Advisor

Meet with animation and game development advisory boards to provide feedback on the program's curriculum and roadmap. Provide insights into current industry wants and needs.



## inXile Entertainment

Nov 2017 – Jan 2019 | 1 year 3 months

### Audio Programmer

Supported the audio team, providing high-level engineering direction and support on Bard's Tale 4 (UE4/C++) and Wasteland 2 (Unity/C#). Rapidly troubleshooting showstopper issues, providing efficient and straightforward solutions.