

# MICHAEL DALE LONG

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<https://digitalbytes.net>

I am a veteran game programmer with 25 years of industry experience, and a passion to make great games and have fun in the process.

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## Skills

- High proficiency in C/C++, C#, Lua, and Python.
  - Familiarity with several other languages, including Rust, PHP, Perl, and Ruby.
  - Several years of experience leading and directing a team of programmers.
  - Experience directing and mentoring junior programmers.
  - Adept at developing for a client-server game architecture.
  - Experience determining technical requirements and managing task timelines.
  - Development experience with PC, console, and mobile games.
  - Architected highly scalable support services for online gaming infrastructure.
  - Experience working with several game engine codebases.
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## Experience

### **Roundhouse Studios and ZeniMax Online Studios**

Senior Engineer, Lead Gameplay Engineer

Madison, WI – November 2019 to October 2025

- Worked with Lead Engineer at Arkane Austin to architect and implement high level content streaming management system in Unreal Engine 4 for Redfall.
- Implemented features for the in-game weather system used in Redfall.
- Worked on combat AI for an unannounced title with the team from ZeniMax Online Studios, leading to formally joining ZOS in 2024.
- Was promoted to Lead Gameplay Engineer shortly after joining ZOS, was responsible for roughly 1/3 of the gameplay engineers on the project.
- Headed up technical efforts for high level organization of combat AI, to support designer led efforts for managing player encounters with AI.

### **Human Head Studios, Inc. – Senior Programmer**

Madison, WI – October 2018 to November 2019

- Senior Programmer on the Survived By development team.
- Implemented client, server, and backend functionality.
- Managed structural changes to improve backend and database performance.

### **Reset Studios – Senior Programmer, Lead Programmer**

Kalamazoo, MI – March 2016 to September 2018

- Lead Programmer on Steven Universe: Tap Together for iOS and Android.
- Developed C++ micro-services to provide client messaging, matchmaking, and server co-ordination, that interfaced with Redis and our web-based API.
- Responsible for release cycle coordination, directly involved with deployments.
- Developed client-server multiplayer support in Unity.
- Developed AI for multiplayer bots.
- Designed and implemented localization system.

**Frostburn Studios** – Senior Programmer  
Kalamazoo, MI – January 2015 to February 2016

- Implemented Linux server support for Heroes of Newerth (PC).
- Maintained the Linux client and assisted with the Mac client.
- Added networking diagnostics to servers.
- Improved build system architecture.

**S2 Games** – Senior Game Programmer  
Kalamazoo, MI – April 2012 to November 2014

- Wrote game code within a networked client-server architecture for Strife (PC).
- Made improvements to entity pathing and obstacle avoidance systems.
- Developed the AI framework used for bot matches, with a strong emphasis on teamwork coordination.
- Integrated Nvidia technologies, including PhysX, PhysX Particles, and TXAA.
- Contributed CPU and memory optimizations for improved performance.

**Human Head Studios, Inc.** – Programmer, Lead Programmer  
Madison, WI – November 2004 to March 2012

- Lead Programmer on two projects, including Prey 2.
- Programmed AI, animation control system, save/load, and Xbox 360 support.
- Designed and implemented business server infrastructure.
- Supervised development of AI, weapon, and gadget systems for Prey 2.
- Worked with small cross-discipline team to implement character designs in Prey.
- Handled Prey installer and patches, including scheduling releases.

... and more! See my complete work history going all the way back to 2000 at  
<https://digitalbytes.net/resume/>

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**Indiana University**  
Bloomington, IN  
Graduated May 2000  
B.A. in Computer Science

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**DIY Tablet Computer**

Using a Beagleboard-xM motherboard with a touchscreen and battery designed for the Beagleboard, I built a do-it-yourself tablet prototype, capable of running Android, Yocto/OpenEmbedded, and Debian-based Linux ARM distributions.

**Perthion**

Perthion is a multiplatform 2D game engine I have been developing in my spare time over the last few years. It is the basis for a few prototype games I have developed, and I continue to update it from time to time.

**Splat Graphics Library**

SplatGL is the renderer for Perthion, separated into a C library. It provides the basic rendering needs for a 2D tile based engine. It is an open source project, publicly available at GitHub (<https://github.com/nikarul/splatgl>).