Mike Kasprzak

Video Game and Web Programmer, Event Organizer, Community Manager, (Former) Small Business Owner, Influencer, Author

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EXPERIENCE

Tiny Titan Studios, London ON — *Programmer*
Game Development Studio (under 20 people)

APRIL 2018 – DECEMBER 2019

I was brought on to rework an online multiplayer mobile game to scale. I lead the effort to re-engineer the game to run entirely server side on low cost VPS Linux servers. The game server was rewritten in C++, and it streamed updates over UDP to hundreds of game clients. I also deployed and managing the 40+ servers around the world that supported the game.

In addition, I helped develop and deploy the backend API servers. These were written in PHP 7, and deployed to a cluster of redundant frontend (PHP+NGINX), database (MariaDB), and datastore (Redis) servers. **Arena Stars** launched on Android, iOS, and Steam in November 2018, but sadly shutdown in October 2019.

I stuck around a while longer to make a contribution to an unannounced game coming to PC and consoles. I lead the effort to implement rollback multiplayer netcode in to the game. I leave with this code running on PC and consoles, and my best efforts to prepare QA for submission to Sony, Nintendo, and Microsoft.

Ludum Dare, Online — *Co-Founder, Developer, Caretaker*
Event Hub for more than 65,000 game creators (over 200k including spambots)

APRIL 2002 - PRESENT

Founded in April of 2002, Ludum Dare is the largest online game jam event in the world. The event attracts many thousands of developers and challenges them to make a game from scratch in a weekend. Find us at https://ldjam.com

I'm part of the team that founded the event. Originally a hobby project we ran together, today I am the sole person responsible for the event. I handle scheduling, running the event, managing the servers, custom software development, and promotion of it and its social media accounts.

SUMMER 2015 - PRESENT

After growing far beyond expectation, and with our 15th anniversary on the horizon, I put my my small business on hold to focus on building a brand new community website for Ludum Dare from the ground up.

Buzzwords: Developed a custom multi-user social network entirely from scratch with a PHP 7 and a MariaDB backend, transpiled ES6 JavaScript code for the frontend (using Preact), a sophisticated compiler toolchain stapled together with GNU Make, and a local virtual machine testing environment powered by Vagrant and Virtualbox.

Open Source. https://github.com/ludumdare/ludumdare

CONTRACT WORK

2016

Digistump LLC, Portland OR - Added initial support for the Oak development board/IOT Module (ESP 8266) to the Arduino IDE.

2013

Shaw Cable, Calgary AB - On site, and working with a team in India, developed an Android and iOS TV guide to the spec of the client using proprietary HTML5 stack. Contract work done on behalf of **Itaas Inc.**

Itaas Inc, Deluth GA - Provided HTML5 Training a the London ON office, to prepare them for work with next generation TV set-top boxes.

2011

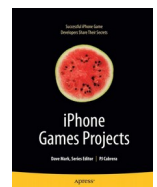**Hemisphere Games**, Montreal QC - Ported **Osmos** game to Intel's AppUp platform.

2010

Big Blue Bubble, London ON – Ported **Thumpies** game to Samsung's Bada platform.

2009

Apress, Berkley CA - Wrote a chapter for the book "**iPhone Games Projects**".

Sykhronics Entertainment, London ON — *Owner*
My Independent Game Development Studio (usually 1 person, sometimes 3)

2006 – 2015, CLOSED IN 2017

My small award winning independent game studio. I often worked alone and with contractors, though for over a year it had 1 other employee. **Sykhronics'** (sigh-cron-icks) goal was to create original games for a variety of platforms, but I occasionally did contract work for other companies under the name. Sykhronics was put on hiatus in 2015, but eventually closed. I continue to sell my software under my own name.

Sykhronics Entertainment was a licensed **Sony PSP**, **Nintendo 3DS**, **Nintendo Wii U**, **Steam**, **Apple**, and **Android** developer. Sykhronics also developed and published software for Amazon Kindle, Symbian, Nokia Maemo, Palm webOS, Intel AppUp, Intel MeeGo/Moblin, GameTree.TV, Microsoft Windows Mobile, Microsoft Windows Phone, Blackberry, Tizen, Samsung Bada, Linux, and Microsoft Windows.

Notable Released Projects:

Smiles HD (or sometimes "**Smiles**") - smileshd.com

Released for multiple platforms, most of which don't exist anymore (see list above). Winner of multiple awards. Finalist in the **Independent Games Festival Mobile** in 2009.

Big Blue Bubble, London ON — *Technical Director*
Game Development Studio (under 50 people)

2004 - 2005

I acted as Technical Director in the early days of the company, advising and assisting the project leads, interviewing candidates, among other things. I also personally lead and developed several projects.

Notable roles on released projects:

Atomic Betty (Game Boy Advance) - Lead, Engine Programmer
Dragon Tower (J2ME Mobile) - Lead Programmer
Mage Knight (Nintendo DS) - (Prototype) AI Programmer
Connect 4 (Mophun Mobile) - Complete Rewrite Port (J2ME to C)
Barry Bonds Home Run History (Mophun) - Complete Rewrite Port

Digital Illusions Canada, London ON — *Senior Programmer*
Game Development Studio (under 100 people)

2001 - 2004

Formed after Sandbox Studios was purchased by Digital Illusions. I lead one of teams at the studio doing handheld games. As the resident expert in our handheld division, I supported all our handheld teams with technical knowledge of the platforms, and established our shared workflow.

Notable roles on released projects:

Barbie Gotta Have Games (PlayStation) - Tech Lead, Programmer
Polly Pocket (Game Boy Advance) - Tech Lead, Programmer
Secret Agent Barbie (Game Boy Advance) - Lead, Engine Programmer
Diva Starz: Mall Madness (Game Boy Color) - Tech Lead, Programmer
Jump Start: Dino Adventure (Game Boy Color) - Lead Programmer

Sandbox Studios, London ON — *Senior Programmer*
Game Development Studio (under 50 people)

I was brought on as a "Game Boy Programmer" as I had homebrew Game Boy development experience. I helped establish the "Handheld" division, including the shared workflow and toolchain we used for our projects.

Notable roles on released projects:

The Emperor's New Groove (Game Boy Color) - Engine Programmer
Hoyle Card Games (Game Boy Color) - Lead Programmer

Other — *Computer Technician, Manager's Assistant*

A variety of roles at computer retailer **Computers Canada** (not to be confused with Canada Computers) and **Microcad Computer Corporation** in London ON. Roles included some Visual Basic and database programming, some sales, and **A LOT** of computer building.

EXPERIENCE EXPLAINED

I've spent over 20 years doing jobs that required an intimate understanding of computers. Most of that time was spent making video games. Even as a teenager I made video games. I have many fond memories of my Commodore 64 (6502 assembly) and Game Boy (Z80-like assembly). My "in" to the games industry came from my time making homebrew Game Boy games. I have a history with game programming contests; Entering them, winning them, and even running them. That said I can do a lot more than just "*make games*".

A significant number of my years were spent working with derivatives of GCC (or the GNU Compiler Collection) and GNU Make; Notably all my time on Game Boy Advance, PlayStation, and Mophun. Even in the DOS days I was using DJGPP (a GCC port). It often surprises people, but I actually like Makefiles. On ocassion I've built GCC cross compliers, and I dabble with Clang+LLVM.

Spending so much time with GCC and GNU Make meant I also spent a lot of time with Cygwin and MinGW+MSys. Put another way, I've been using Linux bash shells for over 20 years. That said, it wasn't until 2013 that I switched my primary OS to Linux. The stars aligned, and Ubuntu shipped with working OpenGL 3.x drivers. I could finally run my shader code on Linux!

Today my preferred development environment is Linux, but I'm comfortable working on Windows (so long as I have my Ubuntu bash shell handy), OSX, and FreeBSD. I'm still a bit of a retro game dev nerd, but I prefer to cross compile from a PC.

I lean most towards being a low-level and systems programmer. I've shipped several games written entirely in assembly (see Game Boy), several more in C, and later C++. I did the dance many programmers do with C++, going full polymorphic inheritance template mumbo-jumbo, to eventually deciding a more C-style C++ is best. I've written many game engines, 2D physics engines, and little projects using them. One of my cooler personal projects is a live-coding game engine, where the assets and code you write updates the game in real-time. And beware, I might have too many opinions on coding style.

Out of necessity I stumbled in to web development. The hobby project my friends and I started blew up in popularity, and running it was becoming a nightmare. My software business was on its last legs, but I had a little money left over. That money combined with a Patreon let me fund myself for a couple years as I figured out the nuances of web, and built us a fully custom solution on low cost VPS servers. I'm actually very fond of web development now. Instead of optimizing for speed as I would on a game console, I'm optimizing for cost. That's me: gotta optimize. We've run the last 7 events (of 46) for many thousands of participants on this codebase. I look forward to using my newer knowledge of HA to further optimize and improve it some day.

As for things that make me human: I love cooking... I maybe obsess over it. Recently I started to teach myself photography and everything I can about video production (on a budget). I'm trying to practice being more comfortable on camera. That said, I'm still terrified of speaking in front of an audience. ;)