Mike Kasprzak

Video Game Systems 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.
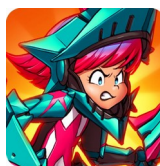
In addition, I helped develop and deploy the backend API servers. These supported the game by storing all persistent player information, purchases, matchmaking, and providing us with realtime game metrics and sales data. Written in PHP 7, and deployed to a cluster of redundant frontend (PHP+NGINX), database (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.

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 – 4 months on site in Alberta 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

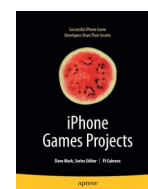**Hemisphere Games**, Montreal QC - Ported **Osmos** game to Intel's AppUp platform.

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, but up to 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. Sykhronics was put on hiatus in 2015, but was eventually closed in 2017. I continue to sell 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 at the studio.

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) - Complete rewrite port (J2ME to C)
Barry Bonds Home Run History (Mophun) - Complete rewrite port (J2ME to C)

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)

1999 - 2001

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*

1997 - 1998

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. ;)