Joseph Howes

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QUALIFICATIONS

- **25 years total professional programming and creative experience** in business and the arts.
- Very experienced in **C/C++ and Java** with experience in dozens of other compiled, interpreted and scripting languages.
- Combined 16 years experience with web development (**Javascript, jQuery, Python, Django, AJAX, PHP, J2EE**, **servlets**, **JSPs**, **CGIs**, **HTML**, **MySQL, PostgreSQL, SQLite**, etc.).
- Self-published an **iOS app** called *Woodshed Supermetronome*, now available on the **iTunes App Store**.
- 3 years **video game industry experience**.
- Shipped software for **Windows, xbox 360, iOS** and several **Unix** flavours.
- 11 years of **network & multithread coding experience** including real-time frame synchronous distributed simulation over UDP.
- 2 years experience with **OpenGL** and **Java3D** (1 professionally).

PROFESSIONAL EXPERIENCE

President / Technical & Production Lead

Folding Rain   July 2000 – Present

- At Folding Rain, I have built tools and created content for a wide variety of clients.
- Following are highlight projects:

EXTERNAL CLIENT: **Cosmos: A SpaceTime Odyssey** (Dec 2013 – Jan 2014)

- **Programmer**, **animator, molecular modeler**, **camera control, lighting.**
- Responsible for hand and Python-based procedural animation, through Blender, describing the difference between organic and inorganic molecules.
- Segment appears in episode 6: "*Deeper, Deeper, Deeper Still*".

EXTERNAL CLIENT: **ROLLOUT** (Jan 2012 – Present, Remote)

- Implementation of portfolio and e-commerce websites in **Python/Django**, static **HTML,** and a **BigCartel** customization.
- Created many custom view components using **jQuery** and **CSS**, including a dynamic slideshow piece and meta navigation across all web properites (http://rollout.ca).

INTERNAL PROJECT: **Woodshed Supermetronome iPhone App** (2011-2014)

- Click-track building tool for musicians, now available on the app store.
- Responsible for the concept, design, coding, graphics, animation, testing, and marketing.
- Language: **Objective-C**.
- Tools: **Photoshop, Xcode, Instruments**.
- A metronome app requires zero latency sound so a simple sleep loop was not sufficient. Explicitly populated output buffers with PCM data using a Remote I/O unit and my own caching.

EXTERNAL CLIENT: **El Fresko Technologies** (2008 – Present, Remote)

- **Programmer**, **interface design/implementation**, **technical writer** and **VP Marketing** for the MagnaStor(tm) product which is a **magnetic WORM filesystem** for Windows and Unix.
- Observed strict **kernel normal form** coding standards, zero error tolerance, and perfect code. We never missed a milestone or a deadline and working overtime and on weekends almost never occurred because of our strict standards enforcement.
- Implemented both **kernel** and **userland** systems, including backup, restore, and fsck utilities. Implemented **web-based** (**AJAX + JSON)** and **Java** app admin GUIs.
- Assisted in the specification and implementation of the **MOH programming language**.
- Wrote an **embedded web server**.

EXTERNAL CLIENT: **The Edge Cinematography** (2004-2006, Calgary, AB)

- Lead editor, compositor and animator on projects for **Shell**, **UFA**, **CTV**, **Critical Mass**, and many others.
- Daily tools included **Avid XPress Pro HD, Adobe AfterEffects, Sony Vegas, Pro Tools LE, Maya, Avid 3D, Avid FX, Primatte 3**.
- Used programming skills to admin client staging areas for evaluation video.
- Helped implement the office LAN, and set up ad-hoc DNS for the IP-aware **Sony XDCam** equipment.
- Represented the post-production end of the business to clients, and worked constantly with clients on their projects.

INTERNAL PROJECT: **StoryLoom** (2004 - 2006)

- Completely designed and developed StoryLoom footage logging system for the film and television industries.
- Chiefly a **Java** implementation with **SWT UI** and native capture written in **DirectShow (C++)** (Windows).
- Backing database was **PostgreSQL** for the web version and **Hypersonic** for the shipping GUI application.
- Represented the technical vision of the company to investors.
- Installer was implemented using **Install4j** to continue with the native look-and-feel requirement for Windows.
- Design always focused on re-use and building the corporate library of tools and frameworks.

Programmer

Petroglyph   Las Vegas, NV, USA   Aug 2006 – May 2008

- **Named credit** on Universe at War: Earth Assault for Games for **Windows LIVE** and **Xbox 360**.
- Used **Visual C++** for code development, **Visual .NET** for tools, and **Lua** for script.
- Primarily responsible for **GUI**, **multiplayer** and **Xbox/GFW LIVE** features such as **chat**, **matching** and achievements.

Programmer

Electronic Arts   Las Vegas, NV, USA   May 1999 – Jun 2000

- Implemented a rule prototype, ladder storage, web view, and client communication for the **"World Domination Tour" massively multiplayer meta-game** for the PC gaming hit *Tiberian Sun: Firestorm.* GUI components were **AWT**, while shipping game code was written in **Win32 C++**.
- Maintained Westwood Online pieces for **Tiberian Sun**, **Firestorm**, **Nox**, **Red Alert 2**, and **Emperor: Battle for Dune**.

Co-Founder / Programmer

Game Doctor   Calgary, AB, Canada   Dec 1991 – Nov 1993

- PC memory-configuration utility in **C++.** Idea was eventually adopted by Quarterdeck who published their own version called *Game Runner*.
- *Game Doctor* was used in the **PC Gamer Testing Lab** for a number of months before the advent of Windows 95 (which ameliorated the need for memory config utilities).

EDUCATION   **B.Sc. Computer Science**

University of Calgary   Calgary, AB, Canada   *Graduated May 2000*

INTERESTS   Professional actor, editor, CG animator and filmmaker. Professional musician, aspiring actor. I love cycling, swimming, cooking, and games.

DESIRED SALARY   Salaried Employment   : $120,000 - $130,000
Contractor Employment (through Folding Rain LLC)   : $80 / hour