





# Walter Behrnes

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Passionate, success driven senior developer / effects technical director with over 15 years of experience who is skilled in managing and mentoring junior team members. Adapt in all phases of the software development lifecycle, skilled in front-end as well as back-end development using PHP, Java, Python, JavaScript and other languages. Proficient in developing programming standards and documentation creation.

## Programming Experience:

Angular, Bash, C++, C#, CSS, GIT, HTML, HTML5, jQuery, JSON, Java, JavaScript, MongoDB, MySQL, Objective-C, PHP, Python, SVN, VB, ZODB

## Software Experience:

After Effects, Avid, Blender, Excel, Houdini, Microsoft Word, Maya, Modo, MudBox, Nuke, Photoshop, UV Layout, XSI, ZBrush

## Work Experience

House Special	Senior TD / Software Developer / Effects Artist	Jan 2015 – Dec 2017
Reel FX	Senior Houdini Developer	Nov 2013 – Jan 2015
Reel FX	Effects Supervisor	Sept 2007 – Nov 2013
Post Asylum	VFX Supervisor	Aug 2006 – Sept 2007
Tippett Studio	Creature Modeler	June 2006 – Aug 2006
DNA Productions	Lead Technical Director	June 2004 – June 2006
Bowling Green State University	Assistant Professor	Jan 2002 – May 2004

## Education

### 2000 - 2002

M.F.A., Digital Arts Bowling Green State University

### 1999 - 2000

B.F.A., Computer Arts Bowling Green State University

### 1995 - 1998

Louisiana State University

**Software:** Houdini, Maya, Nuke, Real Flow

**Development:** Python, PySide, C++, XML, JSON

**Job Description:**

As a Senior TD / Software Developer I developed a parallel effects and VR pipeline. This required front-end and back-end development. I was also responsible for technically leading shows and simulating effects when extra help was needed.

**Development Highlights:**

- DB Module.  
Module used to communicate with Shotgun. Used by Maya, Houdini, Nuke.
- Qube Module.  
Module which ties into the Qube API allowing for farm submissions from Houdini, Nuke, Realflow
- Path Library.  
Pathing library used to dynamically construct pipeline paths. This was developed to remove hard coding of paths from code.
- Global Module.  
Module used to configure and return global pipeline data.
- Environment and Shell module.  
Modules used to for configuring shell and applications environments used by application launching system.
- Application tracking and management system  
Developed system to easily track and upgrade working applications and plugins
- Task Browser  
Modern task based shot browser. Allows artist to create, track, launch, reconfigure working tasks.
- Assembly Database and command line browser  
Object based database with Command line browser to navigate shot databases
- Houdini FX shot publisher  
System for tracking and publishing FX tasks work to Maya.
- Maya Scene Description Publisher  
Facilitated extracting scene data from Maya to make duplicate scenes in Houdini for FX shot work.
- Houdini Caching system.  
System for caching and managing cache in Houdini
- Houdini Set Dressing toolset  
Toolset for procedural set dressing in Houdini
- Houdini Grass Toolset.  
Custom procedural grass creation toolset in Houdini
- Modeling, Rigging, Animation publishing systems for VR pipeline.

**Commercial Highlights:**

M&Ms, Boom Beach, Chipotle, Custom Ink, International Delight, Ohio Lottery, Yule Log

**Software:** Houdini, Maya

**Development:** Python, PyQt, PySide, C++, Git, MongoDB, XML, JSON

**Job Description:**

As a Senior Houdini Developer, I was responsible for developing all aspects of the Houdini pipeline. This work included developing a code base which managed large amounts of project based data, and encompassed back-end as well as front-end work.

**Development Highlights:**

- Development and maintenance of asset accessory system  
Toolset for building and dynamically deploying mass populated assets into lit scenes.
- Development and maintenance of automatic culling system for set and accessories.  
Dynamic culling system used to create render bundles and setting lod levels for Set based assets in relation to distance from camera and frustum visibility.
- Asset LOD: a node based tool for visualizing and setting lods of set based assets in scene.
- Asset Grouper: a node based tool for quickly generating render bundles of set assets based on camera frustum.
- Asset Reduce: a node based tool for visualizing and nondestructively reducing visible set based assets.
- Accessory Reduce: a node based tool for quickly reducing dynamically populated accessory system.
- Scene Data node: a node based tool for quick automation of tools listed above.
- Set Dress Accessories: Developed and maintained method for creating, populating, and caching of set accessories.
- FX Accessory wrapper: Developed toolset for wrapping FX elements into accessories to facilitate easy delivery to lighting department.

**Software:** Houdini, Maya, Nuke, Excel

**Development:** Python, PyQt, PySide, C++, Git, SVN, MySQL, XML, JSON

**Job Description:**

As an Effects Supervisor I was responsible for building, managing, and maintaining the effects department. I developed department pipeline tools, trained my crew and participated in creating effects shots when required.

**Development Highlights**

- PyQt Cache management tool (python) (command line)
- PyQt rat to dtex conversion tool. (python) (command line)
- Render range and image verification tool(python) (command line)
- Toolbar Machine independent copy paste tool. (python) (Houdini)  
Allows artist to send Ctrl-C info to another artist to CTRL-V into their scene.
- Toolbar based, cache path management. (python) (Houdini)  
Allowed artist to quickly get formatted render and cache paths for Nuke.
- Toolbar based, Qube render jobs analyzer(Python) (Houdini)
- Converted previously written fur exported from python to C++
- Custom fur importer C++

- Python based OOP crowd simulation toolset.
- Tree Creation and population toolset.
- CVEX Grass Generation toolset
- Procedural set dressing toolset

**Film Highlights:**

Free Birds (2013), Despicable Me Minion Mayhem (2012), Humbugged: Rockettes to the Rescue (2011), Ice Age Christmas Special (2011), Judy Moody and the Not Bummer Summer (2011), Looney Toons Shorts (2010 - 2011) (*Requiem For A Hunt, I Tawt I Taw a Puddy Tat, Fur of Flying, Rapid Rider, Coyote Falls*), Open Season 3 (2010), Spy Next Door (2010), Ferrari Dark Ride - Theme ride in Dubai (2010), Tales of the Black Freighter (2009), Journey to the Center of the Barnett Shale (2008), Open Season 2 (2008)

**Post Asylum**

**Visual Effects Supervisor**

**Aug2006 – Sept 2007**

**Software:** Houdini, XSI, Photoshop, Body Paint, After Effects, Excel

**Development:** PHP, MySQL, JavaScript, Hscript

**Job Description:**

As Visual Effects Supervisor I was responsible for building and managing 3d department, art directing projects, creation of internal database driven website, budgeting hours for project completion on 3d and 2d projects, working closely with clients to bring their vision to reality, and hands on working to complete projects (all aspects of live action and 3d animation).

**Development Highlights:**

I wrote an in-house web based project management system (PHP). This system tracked hours, tasks, generated reports.

**Commercial Highlights:**

Time Warner, Papa John's Pizza, Harrah's, Dairy Queen, Heeleys, and Cadbury Schweppes.

**Tippett Studio**

**Creature Modeler**

**Jun 2006 – Aug 2006**

**Software:** Maya, MudBox, Cyslice, UVLayout

**Development:** Mel

**Job Description:**

As a creature modeler I created digital creature models, painted displacement maps, laid out uvs, made blend shapes and occasionally wrote scripts to speed up my workflow.

**Film Highlights:**

The Spiderwick Chronicles (2006)

**Software:** Houdini, Maya, Zbrush, XSI, Massive

**Development:** Perl, Hscript, Bash, CMD, Mel

**Job Description:**

As Lead Technical Director (Environments) I was responsible for overseeing the technical aspect of the Environment team and created tools to meet the environmental needs of the film we were working on. This included creating procedural modeling tools, rigging hard surface models, training users on the tools I created, and creating effects shot work near the end of the film we were working on.

**Development Highlights:**

- *Procedural Modeling:* Building, maintaining, teaching procedural environmental tools in Houdini. (Grass, ground, shrubbery, etc.). Concurrently work with massive and effects team. My duties include developing OTLs and scripts to help integrate Massive data into the Houdini to integrating the procedural grass tools dynamically interact with characters.
- *Pipeline tool development:* Construction of tools to automate workflows, save disk space, gather geometry lists, and reduce geometry size.
- *Prop Rigging:* Creation of prop rigs / layout rigs for animators and dress out artist. Training of artist on rig usage. Trained other members of my team in set rigging. Checked all set rigs coming out of department.
- *Modeling:* Building of organic and hard surface models. Occasional UV and ZBrush work. Script writing to help speed up modelers work flow.

**Film Highlights:**

The Ant Bully (2006)

**Job Description:**

Full teaching responsibility, creation of syllabus and defining and implementing course objectives. In this position I taught animation, 3d modeling, mel scripting, flash, and interactive art.

Developed both front-end and back-end website for company.

**Technology:** PHP, MySQL, JavaScript, jQuery, HTML, CSS

Developed front-end , back-end experience for client with easy updating system

**Technology:** PHP, XML, JavaScript, jQuery, HTML, CSS

**BlueMunster,LLC** 2008 – 2013

Front end-website for promoting games produced by BlueMunster.

**Technology:** PHP, MySQL, CSS, JavaScript, jQuery, HTML

**SOS Save Open Space** 2008

Developed front-end web experience for client with website search capabilities.

**Technology:** PHP, HTML, CSS, JavaScript

**PolyExtrude** 2002 – Current

A personal website I maintain to promote myself.

**Technology:** PHP, JavaScript, jQuery, HTML5, CSS

**Behrnes, LLC**

**Founder/Owner/LLC Member**

**2012 - 2015**

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Behrnes, LLC is Spice Company I founded which sales Spice Mixtures to the public and wholesale. Apart from running the business I also wrote and managed the Front-End and Back-End of the company's website

**Development:** PHP, JavaScript, MySQL

**BlueMunster, LLC**

**Founder/Owner/LLC Member**

**2008 - 2013**

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BlueMunster, LLC is a company I founded in 2008 to peruse my love of coding mobile applications.

**Development:** Java, Objective-C, MySQL

**Published games:** Munster Matcher, Munster Matcher 2d, Symbol, Ah! Slugs