

Shandy Brown

Python expert

Experience with JavaScript, PHP, C, and some others

Systems / Web Stack: Linux, Docker, VMware ESX / ESXi, Bash shell,

relational databases, web servers, HTML, XML, CSS, SVG, raster images, Amazon S3

Software & Libraries: Git, Django, Tornado, Inkscape, Pygame, jQuery, React

EDUCATION

University of Waterloo

Graduated Honours Bachelor of Mathematics, Computer Science

2001

Software Engineering Option. Society, Technology, and Values Option.

Contributed to a paper on Automatic Sequences accepted by ICALP and published by RAIRO

Hipmunk, Inc

2014 to 2016

Senior Engineer

Reliability - Dockerized the unit test environment, Created canned response modules for testing against 3rd party APIs, Created mocks for the internal ORM and Amazon's S3 API.

Mentorship of junior-level engineers.

Hotel Images Project - Implemented a system to improve the quality and performance of the hotel product. The system consumes 40 million images from 3rd parties, detects duplicates with a "phash" algorithm, creates derivatives using PIL, stores them in S3, and serves them via CDN. Also, built an admin interface and pushed metadata up to a backend API.

Scraperlog Archiver Project - Created a fault-tolerant, high-throughput (Gigabytes per hour) system to continuously save and index API responses in S3, including an admin interface. This allowed us to diagnose notoriously elusive pricing and availability issues.

Codebase Husbandry - refactored import statements in the entire codebase for consistency, contributed to the Dockerization of our stack and "canary" deployment tooling, implemented an asynchronous (Tornado) module to interact with S3, and a module to support an interruptible pipeline pattern with Python generators.

Python Freelancer

2013 to 2014

2014: Django and JavaScript/jQuery work on a student application tool for an online university

2013: backend work on a geographical web service built on a Django and SQLAlchemy stack

Besides adding features and creating tools in Python and Bash, my contributions weighed

heavily on the reliability side - creating unit tests, performance tests and being the TDD advocate

Boardcrafting

2011 to 2014

Entrepreneur

Passion project. Kickstarted a board game accessories company, whose every hat I wore.

Created dynamic artwork, marketing web site, online storefront, using Python and some PHP.

Designed, laser-cut, assembled and shipped physical products to over 400 customers.

VMware Inc

2006 to 2011

Member of the Technical Staff

Installer project: Developer on the ESX 4.0 and ESXi 4.5 installers. Team lead on the ESXi 5.0 installer. A Python application that integrates with low-level libraries to install the operating system to a disk. Implemented graphical (GTK), "curses-like", and headless install methods.
Esxupdate project: Developer on esxupdate for ESX 3.5. A Python application to retrieve patches (RPMs) from the network, verify their integrity, and apply them.
Founded the Python Users' Group. Organizer of monthly meetings and presenter of talks.

J2X Technologies Inc

2004 to 2006

J2Play Program Lead

Co-led the successful technical launch of our games with 4 international carriers

Digital Thinkery

2001 to 2004

Team Lead / Entrepreneur

Led a team of 3 developing a PHP / Postgresql system to automate booking, point-of-sale, and report creation for a resort

AOL / Quack.com

Software Developer

2000 (Co-op)

Wrote a C++ abstraction layer for software telephony

Inline Internet Systems, Inc

Software Developer

1999 to 2000 (Co-op)

C programming and system administration

Sybase Inc

Software Developer and Product Management

1998 (Co-op)

C++, Ecmascript programming, market research

Ontario Ministry of Transportation

Web Designer

1997 (Co-op)

HTML, JavaScript, image editing

ACHIEVEMENTS / INTERESTS

Learning French and Mandarin.

11 hobby computer games made with Pygame or Pyglet. Awarded 2nd place in a 48-hour competition.

Author of "sjbrown's Guide to Writing Games", a highly regarded tutorial in the Pygame community.

Geeky.net: Co-founded a not-for-profit community internet services provider (lots of sysadmin stuff and script writing)

UW Co-op System Quick and Dirty Web Front End

(http://archive.uwimprint.ca/archives/2000-01_v23/2000-01_v23,n02_Imprint.pdf)

References available upon request