

Experience

Freelance Software Developer
{Missoula, Montana}

May 2012 - Present

- * Developed biological models in Matlab.
- * Developed an application for scraping image data from Imgur.
- * Updated and developed web applications.
- * Performed data analysis on personal financial systems.
- * Developed applications to test security of personal network.
- * Developed an application for adjusting hash values of a given file.
- * Developed an application for beautifying filenames in an entire folder.
- * Developed an application for organizing singleton files.
- * Participated in CSCI 595 - Introduction to Cybersecurity, taught by Sherri Davidoff.

Senior Software Developer for **Hanna-James Enterprises, LLC.** July 2014-February 2015
{Missoula, Montana}

- * Wrote Terminal-Based Test Automation Software in Python
- * Wrote specification document for GUI-Based Test Automation Software in Python
- * Wrote proof-of-concept prototype for D3-based ToR Network Tracking software in Coffeescript
- * Wrote specification document for GUI-Based SDK Architecture
- * Designed and wrote entire MySQL database for SDK toolkit and implemented a data abstraction layer in Python with distinct connectors for loading the GUI, expanding a specified tool, building a tool for insertion into the database, and setting up the toolchain for execution.

Teacher's Assistant for **Programming Languages** Spring 2012
Teacher's Assistant for **Computer Ethics** Fall 2011
Instructor for **Computer Modeling** Fall 2010 - Spring 2011
{University of Montana-Missoula}

- * Taught freshman and sophomore students advanced features of Microsoft Excel and Access and assisted them during labs.
- * Graded all assignments, papers, and exams. Also, maintained office hours to be available out of class for individual tutoring and fielding questions from students.

Education

University of Montana-Missoula
M.S. Computer Science

May 2014

Emphasis in Machine Learning, Data-Mining, and Simulations

University of Montana-Missoula
B.A. Psychology, minor in Math, Media Arts

May 2010

Technical

Languages (Proficient): L^AT_EX, Python, C#, Matlab, JavaScript, R, Java

Languages (Familiar): Bash, C/C++, Coffeescript, OCaml, Perl, Ruby

Databases: MySQL, SQL Server, Access

Frameworks: AngularJS, Ajax, ASP.NET, Bootstrap, D3, jQuery, Node.js, ØMQ

Tools: Android SDK, Emacs, GIT, Mercurial, VIM, Visual Studio

Networking: Aircrack-ng, Kali Linux, Metasploit Framework, NMAP, Wireshark/tshark

Operating Systems: Debian and Red Hat-based Linux, Mac OSX, Windows

Techniques: Iterative Design, User-Centered Design, Rapid Application Development

Selected Projects

More information for the following and other projects can be found on my graduate portfolio blairgemmer.com and the source code is on GitHub @blairg23

Bak-Tang-Wiesenfeld Model for Displaying Self-Organized Criticality

Otherwise known as the Abelian Sandpile Model, written in Python using the Matplotlib module.

Earthquakes

A Python script to plot earthquakes that have occurred in the world, using the Matplotlib Basemap module.

Hoot, aka The Wolf Box

A hardware/software solution for broadcasting and recording sounds in adverse climates.

Particle Simulator

A particle physics simulator written in Python using the OpenGL libraries.