Blair Gemmer {blairgemmer.com – blair.gemmer@gmail.com – 406.253.4962}   © 2016

Experience

Freelance Software Engineer   May 2009 - Present
{**Missoula, Montana**}

* Developed biological models in Matlab.

* Developed applications to test security of personal network.

* Performed data analysis on personal financial systems.

* Mentored students of the Firehose Project.

* **[Ongoing]** Developing and maintaining web applications for local businesses.

* **[Ongoing]** Miscellaneous development on personal projects.

* **[Ongoing]** Learning new languages, technologies, and frameworks.

Co-Founder, CTO **dotmos, LLC.**   July 2015 - Present
{**Missoula, Montana**}

* **Technical Lead:** driving design and development of technical specifications for key features and tools.

* **Lead Software Engineer:** front-end and back-end design and development.

* **Project Management:** development team leader, repository management, issue curation, documentation generation, team communications, and data analysis.

Data Scientist, Software Engineer, etc. **Upstream Research, Inc.**   November 2015 - September 2016
{**Missoula, Montana**}

* **Data Scientist:** acquisition and analysis of large geographic-based data sets and creating and updating services in ArcGIS.

* **Software Engineer:** writing and testing automation scripts in Python and ArcPy; developing ASP.NET application using the MVC framework in C#; designing and implementing unique solutions to novel problems; and writing and supporting custom functions in PostgreSQL.

* **Quality Assurance:** user-testing, writing reports, writing custom scripts in Python to test REST API endpoints, and load-testing pages and REST API endpoints.

* **System Administration:** deploying software releases, ensuring server up-time complied with SLA, security updates and patches, and managing Azure resources.

* **Customer Support:** interfacing directly with customers and debugging customer and software issues.

Security Consultant **Lake Missoula Group, LLC.**   February 2015 - May 2015
{**Missoula, Montana**}

* Handled a diverse client base including banks, hospitals, and retail outlets.

* Conducted a variety of engagements including:

  . Internal and External Vulnerability Assessments (IVA, EVA).
  . Internal and External Penetration Tests (EPT, IPT).
  . Web and mobile Application Security Assessments (WASA).
  . Wireless Infrastructure Assessments (WIA).

* Wrote detailed reports and presented results for each type of engagement.

* Performed tech reviews on assessments conducted by other consultants.

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

* Developed Terminal-Based Test Automation Software in Python.

* Designed GUI-Based Test Automation Software in Python using GTK and wrote specification documentation in LaTeX.

* Developed proof-of-concept prototype for D3-based ToR Network Tracking software in Coffeescript.

* Wrote specification document for GUI-Based SDK Architecture in LaTeX.

* Designed and implemented 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.

Teaching

Teacher's Assistant **Programming Languages**	Spring 2012
Teacher's Assistant **Computer Ethics**	Fall 2011
Instructor **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, emphasis in *Machine Learning, Data-Mining, and Simulations*	May 2014

University of Montana-Missoula

B.A. Psychology, minor in *Math, Media Arts*	May 2010

Technical

Languages (Proficient): LaTeX, Python, Bash, C#, JavaScript, HTML5/CSS3, Sass/LESS, Matlab, R

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

Data: Access, CSV, JSON, MySQL, PostgreSQL, RESTful APIs, SQLite, SQL Server, XML

Frameworks: AngularJS, ASP.NET, Bootstrap, Celery, D3, Django, ElasticSearch, Flask, jQuery, Node.js, ØMQ, Pandas, React.js, Redis, Requests

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

Network Security: Aircrack-ng, Burp Suite Pro, Kali Linux, Kismet, Metasploit Framework, Nessus, NeXpose, Nmap, Wireshark/tshark

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

Development Techniques: Agile Methodology using the Scrum framework, Iterative and User-Centered Design, Rapid Application Development, Test-Driven Development

Selected Projects

The source code for all of the following projects is on GitHub **@blairg23**.

Bak-Tang-Wiesenfeld Model for Displaying Self-Organized Criticality
Also known as the Abelian Sandpile Model, this Python/Matplotlib application simulates sand being poured on a single point.

BetterPassword
A short script to turn an easily remembered password into a large hashed password for better security in online applications.

create-api-wrappers
An application that creates API wrapper methods in Python from a list of API endpoints and their valid parameters.

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

files-in-folder
An application designed to perform a hash-wise diff on two given directories.

Hoot, aka The Wolf Box
A hardware/software solution for broadcasting and recording sounds in adverse climates.

images-from-url
An application designed to scrape images off any given URL or REST API.

movie-file-fixer
An application for formatting poorly formatted movie filenames and adding a movie poster from IMDb.

TweetyPy
A Python Twitter client with a wrapper method for every Twitter REST API endpoint.

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

Professional References

dotmos, LLC.

Rod Austin - CEO - 406.396.0673

Upstream Research, Inc.

Alex Philp, PhD. - Co-Founder, CSO - 406.370.2262

David Bechtold - Senior Software Developer - 406.529.9606

Hanna-James Enterprises, LLC.

Misti and Dan James - President/CEO and Vice President - 406.546.4602

Bradley Bahls - Lead Project Manager, Senior Software Developer - 406.207.6351

University of Montana

Doug Raiford, PhD. - Professor, Computer Science Department Chair - 406.243.5605

Joel, Henry, PhD, JD. - Professor, Master's Defense Committee Chair - 406.243.2218

Jesse Johnson, PhD. - Professor, Computer Science Department - 406.243.2356

Yolanda Reimer, PhD. - Professor, Computer Science Department - 406.243.4618

Johnathan Bardsley, PhD. - Professor, Mathematics Department - 406.243.5328