

Andrew Silvernail

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SUMMARY

- Dependable, self-starting, Linux-based software engineer
- Passion for solving interesting problems
- Wide variety of interests including: Mathematics, Algorithms, Functional Programming (Haskell, Elm, PureScript, Idris, Erlang)
- 7 years of Perl experience, 2 years of Python
- Experience with SCRUM and Agile.
- Desire to create elegant, readable, scalable and extendable software solutions, while using the right tool for the right job.
- Organizational and interpersonal skills with ability to prioritize tasks and work with individuals in different timezones/departments.
- Keeps up with latest industry trends, never stops learning.

EXPERIENCE

Backend Developer (Python), Use All Five Inc.

Remote — February 2016 - May 2017

Accomplishments

- Quickdraw.withgoogle.com
 - Added internationalization to REST API
- Memoriesalive.com REST API
 - Stripe Integration
 - Activity Streams
 - AWS Elastic Transcoder Integration
 - Complete and up to date end-to-end test suite: from signup to video encoding (hypothesis for test data generation)
- Built a generic media storage REST API w/ stripe integration for very.gd.
- Maintenance of Django-based code for ways-of-curating, a Google project.
- Used Slack, e-mail, and video chat to collaborate with remote coworkers to arrive at mutually agreed upon solutions
- As the senior backend developer
 - Assisted an entire team of frontend developers on REST API troubleshooting, enhancements, and bug fixes.
 - Systems administration (AWS) and deployment via fabric
 - Wrote and maintained an in-house generic library of Django Apps for reuse on various future projects

Backend Developer (Python), Beyond Inc. (DoubleClick by Google)

New York, NY — September 2015 - February 2016

Accomplishments

- Added custom internationalization features to Google's DoubleClick (doubleclickbygoogle.com)
- Collaborated with other backend developers over several

different timezones to spec, test, and deliver new features as dictated by the client

- Wrote code conforming to Google's comprehensive security specifications (including CSP)
- Worked in both London and New York offices in order to increase organizational cohesiveness, learn from more senior developers, and prepare for future remote interactions
- Worked in an interdisciplinary environment with designers, content analysts, front-end developers, product and account managers to deliver a world-class product

Senior Software Engineer (Python), Purify Inc.

New York, NY — Nov 2013 - April 2015

Accomplishments

- As the sole software engineer created a security tool for software developers from the ground up using Django/Python, AWS, Celery/Redis, and Haystack/ElasticSearch, contributing bugfixes to several Django open-source plugins along the way
- Wore many hats, including systems engineering:
 - Architected deployment practices for the company, using continuous integration (Jenkins), and Fabric
 - Maintained AWS EC2 instances
- Created a REST API
- Created a highly concurrent, continuously updating web-scraping system importing data (XML, YAML) from disparate sources on the web into the Django project
- Migrated the project successfully from Django 1.6.x to Django 1.7
- Started a 30+ unit test suite to test critical parts of the code
- Added github.com integration for scanning user code repositories for potential vulnerabilities, or security issues
- Maintained and architected a MySQL database (later migrated to Postgres) with hundreds of thousands of records
- Optimized the Django project throughout, drastically decreasing page load times by focusing on query-heavy pages, or computationally-complex code paths

Software Engineer (Python), Secure Document Technology Corporation

Portland, OR — Jan 2013 - May 2013

Accomplishments

- Wore multiple hats on the job, including systems operations engineer, QA, and software engineer.
- Working with one other engineer, successfully assisted bringing a demo-quality website to production-quality.
- Participated in all-night sprints and long work hours to ship working, tested code under tight deadlines.
- Actively advised the founder/co-founder on the feasibility of new website

features.

Software Engineer, Doubleprime Inc.

(Telecommute) Ardmore, PA — March 2012 - Jan 2013

Maintained high volume transactional web applications written in Perl for Doubleprime's largest client Estée Lauder.

Accomplishments

- Contributed to the Rapid Rollout department, whose main responsibility to the organization was setting up new web applications via copy-and-pasting existing Perl templates from existing brands/locales and making the necessary changes.
- Attended various work meetings via telephone. Worked overtime as needed. Coordinated with multiple co-workers spanning the globe.
- Fixed bugs, wrote new code as needed in order to launch a new website for Clinique South Africa (<http://www.clinique.co.za/>).

Software Engineer, thebootic.com (Contract)

(Telecommute) Palo Alto, CA — Dec 2011 - Feb 2012

Helped launch thebootic.com startup web application written in Perl.

Accomplishments

- Wrote a testable, extendable, interface to eBay's public Trading, Shopping, and Product Services API, using Moose.
- Maintained older company-facing systems used for site maintenance.

Perl Engineer, CollegeNet Inc.

Portland, OR — March 2008 - Nov 2010

Was part of a team of 4-5 Senior Perl Engineers who maintained several, older legacy systems written in Perl. Also development new sites and systems in Perl to interface with the older, legacy systems, as per client requests.

Accomplishments

- Eliminated Engineering Debt by refactoring large and old legacy sub-systems written in Perl using modern OO-perl (loosely-coupled interface-based) and TDD (comparing old legacy systems output to new libraries).
- Wrote and maintained software systems that supported thousands of different educational institutions by managing leads on potential students and college submissions, unifying student information from disparate SISs, and queuing various background transformations of student-submitted data.
- Created a RESTful framework from scratch under the HTML::Mason framework to work with older legacy systems.
- Used Perl modules such as XML::Twig, HTML::TreeBuilder, XML::XPath, XML::XSLT, Parse::RecDescent, Test::Class.

Stage Technician, LAIKA (Feature Film)

Hillsboro, OR — September 2007 To March 2008

Worked with LAIKA animators directly to troubleshoot Linux-based imaging/animation software. Came up with innovative solutions to mission-critical camera/software/hardware issues. Worked overtime along with animators, as necessary.

Accomplishments

- Troubleshoot Redlake camera system issues (EMI issues, cable or config problems), as well as issues relating to CentOS.
- Calibrated new Redlake camera (tuned color gains, created dark field masks and ICC profiles).
- Wrote Perl scripts to automate standard procedures.
- Worked with cfengine (for stage machine imaging), VFX pipeline, and Shake.
- Anticipated the requirements for new stage machine images and came up with new specs for CentOS configuration.

Perl Programmer (Programmer Analyst, Short-Term Full-time), Rentrak Corp.

Portland, OR — March 2007 To July 2007

Worked along more senior Perl engineers to maintain legacy software which gathered video rental data, and reported rental trends on a customer-facing website.

Accomplishments

- Contributed to weekly team meetings, reporting on progress of assigned tasks.
- Developed unit and integration tests (TDD) to verify specifications were met and worked as advertised. Extensive pair-programming. Attended numerous meetings to refine user requirements.

Programmer Analyst I, Technical Support, Hostcentric Inc.

Orlando, FL — October 2003 To June 2005

Worked first in Technical Support, providing customer service to customers purchasing web hosting, later was hired as a Programmer Analyst 1 to work on the growing number of Perl programs for business analysis and reporting.

Accomplishments

- Created a highly configurable reporting system from scratch that reported such things as categorized earnings in different product groups, new revenue analysis, and call center trends. Added features to send HTML-formatted reports to upper-management at specific times during the business day with the help of cron and added an additional CGI portion that delivered data via HTTP to remote Excel spreadsheets with the help of some VBA code. Used the DBI class extensively to retrieve, modify, and insert data, using the following drivers: DBD::Sybase + FreeTDS libraries to interface with MS-SQL. Plus DBD::MySQL to connect to native MySQL databases in a BSDi environment. Used such modules as Test::More, Class::DBI, DBIx::*, Template::Toolkit, DBI::*, XML::Simple, XML::LibXSLT, XML::Twig, GetOpt::Long, Parse::Recdescent.
- Wrote various perl scripts for systems administrative tasks on Linux and Windows such as complex search-and-replace scripts

on Win2K3 and helper scripts on Linux for updating configuration files or benchmarking the performance of existing code (Test::Benchmark).

- Maintained and created website code/content (classic ASP) and the customer support ticketing system (Cold Fusion 5).
- Presented data in various team meetings when required, and updated Perl scripts when necessary to accommodate changes in business logic or data anomalies.
- Resolved technical problems related to websites and Apache or IIS.
- Troubleshot scripts and web applications, and performed system administrative tasks on Linux and Windows servers.
- Maintained and wrote scripts for administrative uses.

EDUCATION

PSU

Studied Mathematics — 2011-2012

Credit Courses in: Mathematics, Electrical Engineering
High School Diploma

LIBRARIES/MODULES/LANGUAGES USED

- Python: Django, FSM, TurboGears, virtualenv, Elasticsearch/Haystack, Celery/Redis
- Perl: modperl (Apache 1.3/2.0), Catalyst, Moose
- C, Assembly (GNU Assembler), Haskell, Elm
- SQL (MS-SQL, MySQL, Postgres, SQLite, Oracle, DTS, SQL Server 2K and 2K5)
- JavaScript (prototype-based JavaScript along with jQuery, YUI 2, Select2, Backbone.js)
- HTML, CSP
- git, Mercurial, Subversion, CVS, ClearCase
- apache2, nginx, uwsgi
- Android Java Programming, Eclipse, Mercurial
- Chef, Amazon Web Services

REFERENCES / Code Samples

Available upon request.