

Donald Stufft

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Experienced Python Software and Packaging Engineer

Projects

- Warehouse (<https://github.com/pypa/warehouse>)
- PyPI-Legacy (<https://github.com/pypa/pypi-legacy>)
- pip (<https://github.com/pypa/pip>)
- packaging (<https://github.com/pypa/packaging>)
- Linehaul (<https://github.com/pypa/linehaul>)
- psf-salt (<https://github.com/python/psf-salt>)

Websites

- <https://caremad.io/> (personal site)
- <https://github.com/dstufft> (code)

Experience

Software Development Engineer II Amazon Dec 2016 - Present

Infrastructure Volunteer Python Software Foundation 2012 - Present

- Primary maintainer and operator of the current implementation of PyPI which serves 3+ billion HTTP requests and uses 390TB of bandwidth per month.
- Secured in-kind donations from vendors such as Fastly, Rackspace, Heroku, etc and managed the relationship with these vendors to support the PSF's infrastructure.
- Wrote and deployed Salt states to deploy highly available instances of PostgreSQL, HAProxy, Discourse, etc as dictated by the needs of the PSF and the Python community.
- Implemented the current salt deployment automation for the main, non-PyPI infrastructure as used by the PSF today.
- Responded to system downtimes as a quasi-permanently on-call team member to communicate downtime to the wider community and resolve issues to restore service.

Systems/Software Engineer V HPE May 2015 - Oct 2016

- Implemented a new PyPI code base from scratch designed to be maintainable and modernized.
- Implemented a statistics gathering pipeline that takes 500 million incoming download events a month, processes them, and stores them durably for later querying.
- Maintained pip, working with contributors as well as writing pull requests to continue to improve it as well as acting as the release manager.

- Worked with downstream distributors of pip to ensure that they were able to distribute the latest versions of pip in a consistent and stable way.
- Engaged the Python community in a number of enhancement proposals to improve the state of packaging.
- Participated in the founding of the Python Packaging Working Group.
- Collaborated on grant writing to support the PyPI and Warehouse projects.
- Lead a growing team of PyPI and Warehouse contributors, including developers, a designer, and a project manager.

Software Engineer V Rackspace

Dec 2013 - May 2015

- Implemented a library for interfacing with a Certificate Authority vendor for issuing x509 certificates.
- Implemented a Python based, single file executable to be delivered to customers without requiring an installation step on the customer computer.
- Participated in the development of Barbican, a cloud based secrets management system for OpenStack.
- Implemented Chef cookbooks for deploying an internal DevPI instance for production deployments of Barbican.
- Worked on and got accepted a new versioning standard for distributable Python projects as well as implementing support for the new standard within PyPI and pip.
- Proposed and got accepted the removal of insecure methods of downloading and installing files from PyPI.

Software Engineer Nebula

Oct 2012 - Dec 2013

- Implemented remote support capabilities which injected one time use SSH keys across an OpenStack cluster.
- Implemented an automatic security testing framework for a Linux OS cluster to ensure a consistent secured state on all hosts in the product.
- Implemented a secure web based password management tool for customer passwords.