Stephen King

Python Developer

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📍 Exeter, Devon, UK 🇬🇧

Summary

A software engineer with a traditional classical education in pure science.
Having worked in software development since 1998 and specifically with python for 13 years I have a proven record of improving process performance by implementing new ideas, automation and generating new tools.
A self motivated, proactive, self starter with ability to use initiative, innovate and operate autonomously or mentor and collaborate with team members.

Key Skills

- Python
- Git
- FastAPI
- Ansible
- Automation (Networking, CI/CD, QA)
- Networking
- Linux
- Docker

Education

- MSc. Biochemistry, University of Reading.
- BSc. Biochemistry with Chemistry, University of Reading.
- 'A' Levels: Physics, Chemistry, Pure Mathematics and Biology.

Professional Qualifications

- Cisco: CCNA, CCNP, CCDA, CCDP.
- Citrix: CCEA, CCA.

Employment History

Python Developer, Xilinx Technology *(May 2020 – Jul 2023)*

- Developed and built internal tools to improve development efficiency and workflows and provided automated solutions to test quality of 10-100 Gb Ethernet adapters and switches.
- Identified inefficiencies in existing ecosystems and implemented processes/tools to remove them.
- Developed python scripts to automate development and testing infrastructure utilising libraries Nornir, Paramiko, Netmiko, Napalm and Fabric along with Ansible and Vagrant.

Self employed *(Oct 2019 –Apr. 2020)*

- Designed from scratch the hardware and software for an original IoT project.
- Investigated the many aspects of commercial IoT projects including legal and manufacturing requirements.
- Conducted performance testing of numerous Single Board Computers to evaluate computational and power requirements.
- Fabricated a final fully operational prototype demonstrator utilising Keras / Tensorflow and OpenCV Python libraries with a Django management interface.

Career Break *(Jan. 2019 –Sep. 2019)*

Time taken to renovate house and relocate.

Software Engineer, Qualcomm *(Aug. 2016 – Dec. 2018)*
- Debugged issues with the Python framework and test code; defined and fixed bugs found. Developed new features of the test framework.
- Ensured Python environments were up-to-date and compatible with the latest language developments, and with other environments used across the company with which it interfaced.
- Supported colleagues with Python test code development. Providing training for new users of the framework and database.
- Managed software roll-out across multiple systems. Defined and developed new automation tools to make testing and debugging more efficient.
- Converted and updated legacy Python scripts & libraries from version 2 to 3.

Python Automation Engineer, Cisco (*Jul. 2011 – Aug. 2016)*
- Designed, developed, coded and debugged automated environments for both Development and QA departments which had a large impact on the agile Kanban two week cadences.
- Supported DevOps by providing tooling, monitoring dashboards and process automation.
- Automated microservice deployment by providing Ansible playbooks, Puppet manifests, Python scripts and Linux shell scripts.
- Supported a challenging microservice infrastructure utilising a multitude of technologies including: Oracle and Vertica DB's, CouchDB, Memcached, Squid, ETL, ActiveMQ, Redis.   Virtualized environments were provided by Vagrant, VMware, VirtualBox and KVM. Containerization was provided by Docker. CI/CD was provided by Jenkins pipelines along with Git.
- Provided monitoring with the aid of ELK Stack, Grafana, Graphite and Prometheus.

Python QA Engineer, Solarflare Communications *(Mar. 2010 – Jun. 2011)*
- Developed and coded an automated test framework in python which along with open source & commercial tools were used to verify performance and protocol functions of 10 Gb network devices.
- Created Test specifications from IETF RFC specifications for protocol verification and subsequent automation by utilising various Python libraries.
- Developed and supported various dashboards created with the Django framework.

Automation Engineer, 3Com *(Feb. 2009 – Jan. 2010)*
- Tested all functional and non-functional aspects of CentOS embedded software on a unified security platform, encompassing firewall, Router, web filtering, spam filtering and anti-Virus functionality.
- Utilised Spirent Smartbits packet generators, Avalanche traffic generators and automated tests with Python, Perl and Tcl.

Technical QA Team Leader, Citrix *(Dec. 2005 – Dec. 2008)*
- Completed many diverse full life cycle testing projects including release 4.5 of Presentation Server, XenApp, XenDesktop, XenServer and Edgesight products.
- Partial automation of the test environments were delivered with C#.