Stephen King

Python Developer

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📍 Exeter, Devon, UK 🇬🇧

Summary

I am a highly skilled Python developer with over two decades of experience in software development and a solid foundation in pure science. Over the past 13 years, I have focused on Python development, showcasing a track record of enhancing process performance through innovative ideas, automation, and the creation of time-saving tools. As a proactive and self-motivated individual, I excel in both independent and collaborative settings, consistently demonstrating the ability to operate autonomously or within a team. My expertise extends across a comprehensive set of technical skills.

Key Skills

- **Python**
- Git, GitHub
- FastAPI
- Ansible
- Technical documentation
- Robot Framework
- Automation (QA, AWS, Networks, CI/CD)
- Networking
- Linux
- Docker
- OpenAPI, REST API's, GraphQL
- Webscraping

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, Freelance *(Sep 2023 –)*
- Currently providing direct independent freelance software development services.

Python Developer, Xilinx Technology *(May 2020 – Jul 2023)*
- Designed and developed the automated testing and development infrastructure frameworks.
- Designed, developed and debugged desktop application tools and utilities with PyQT6.
- Automated network infrastructure with Python libraries: nornir, paramiko, netmiko, napalm, fabric, PySNMP along with Ansible scripts.
- Source code maintained on GitHub using GitHub flow. CI/CD utilizing workflows and Actions.
- Identified inefficiencies in existing ecosystems and implemented processes/tools to remove them.
- Developed and maintained a FastAPI management and orchestration system on AWS EC2, S3 and DynamoDB using python Lambda functions and Boto3 scripts.
- Participated in agile ceremonies: estimations, retrospectives, design meetings, daily stand-ups.

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/patent 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 OpenCV and RabbitMQ with a Django management interface.
- Telemetry was provided by MQTT with a Mosquito broker together with Twilio SMS alerting.

Career Break *(Jan. 2019 – Sep. 2019)*

This period was taken to renovate the 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 code development. Provided training for new users.
- Defined and developed new automation tools to make testing and debugging more efficient.
- Converted and updated legacy Python scripts and libraries from version 2 to 3.

Python SDET & Automation Engineer (DevOps), 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 which utilised a multitude of technologies including: Oracle and Vertica DB's, CouchDB, Memcached, Squid, ETL, ActiveMQ and Redis. Virtualized environments were provided by VMware, VirtualBox and KVM.
- Utilized containerization in the form of Docker to provide consistent development environments.
- Automated QA tests used by the Jenkins CI/CD pipelines.
- Automated Functional web interface tests with Selenium (Python bindings).
- Monitored microservices 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 and commercial tools were used to verify performance and protocol functionality of 10Gb network devices.
- Created Test specifications from IETF RFC specifications for protocol verification and subsequent automation with Python.
- Developed and supported various reporting dashboards utilizing Django.

QA 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.

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.