Perfection is achieved, not when there is nothing more to add,
but when there is nothing left to take away. — Antoine de Saint-Exupery

John Samuel Anderson

Senior Python Engineer, 10+ years experience

Say *Hello!* at https://forms.gle/XT1wXsbG97DL5f9o7

Summary

Full-stack cloud engineer and architect, with wide variety of experience in packaging, infrastructure, automation, and continuous integration. Agile team lead and mentor. Passionate about code quality, excellent documentation and repeatable processes. Prefers Python for most things. 10+ years experience.

Core Competencies

- Clear Communicator
- Fast Learner
- Hands-on Architect

- Polyglot Programmer (many languages)
- Security Conscious
- Team Leader

Employment and Highlights

(global financial services corporation)

April 2022 to current

Senior Python Engineer

- Built out multi-cloud management microservices (Python, FastAPI, asyncio) and CLI utilities (Typer), including:

- On-boarding Kubernetes clusters to Prisma Cloud Compute (FKA Twistlock), an enterprise workload security scanning tool. This also included a User management and off-boarding.

- SPN Credential rotation for Microsoft Azure Kubernetes clusters, using Hashicorp Vault.

- SSL Certificate checker to triage issues with HTTPS microservice certificates.

- Interviewed potential candidates, on-boarded new hires; Agile Scrum, GitHub peer reviews.

- Captured many detailed User Stories (MS ADO), working notes (Confluence), end-user docs (Antora, PlantUML) and developer docs (README, CHANGELOG, GitHub).

- Evangelized GitOps with Kubernetes, ArgoCD/Flux CD v2, and vclusters.

($1B unicorn in information security)

April 2021 to April 2022

Senior Python Engineer

- Juggled complex and fast-changing requirements to hit a critical release target, so the company could obtain Series-C funding and reach "unicorn" status ($1B valuation).
- Interviewed, on-boarded, and mentored new engineers.
- Documented product perspectives from multiple internal stakeholders to identify areas of incompatible/unclear requirements and foster cross-department collaboration. These documents received routine praise and were held up as examples to follow.
- Implemented Python libraries and microservices for highly-scalable backend processing using Kubernetes, Docker, Kafka, PostgreSQL (SQLAlchemy) and GitLab CI/CD.

(global pharmaceutical company)

May 2020 to April 2021
Senior Python Developer

- Designed architecture for highly-scalable, extensible pipeline for data processing within a constrained environment, using just AWS S3, AWS Lambda and Kubernetes.
- Mentored other developers as we built the pipeline and deployed it through to Production.
- Guided new scrum team into better agile practices, while maintaining SDLC process quality.
- Supported existing pipeline deployments.
- On-boarded new pipeline projects and developers around the globe (Europe to East Asia).
- Interfaced regularly with stakeholders in medicine, business, security, and management.

(US-based subsidiary of international business software company)

Apr 2019 to May 2020
Automation Engineer
- Automated user provisioning to multiple systems using Python in Docker.
- Built and improved CICD pipelines using Docker, docker-compose, bash and Python.
- Hardened user-data bootstrap process for AWS EC2.
- Documented and clarified architecture and requirements.

(growing telecommunications- and training-related company)

Mar 2019 to Apr 2019
Senior Software Engineer, Data Engineering
- Crafted custom Python scripts to upload sample data for machine learning reprocessing.

(nationwide provider of Internet hosting services)

Dec 2018 to Feb 2019
Python Developer

- Updated Python dependencies to latest libraries, resolving outstanding known security flaws and bugs in older versions.
- Debugged SAML 2.0 integration issues during local Portal testing.
- Built Docker-based (unit, functional, integration and smoke) tests for local Portal development (using Python).
- Enhanced the Motor project (REST API into kubernetes Tiller) with NewRelic Monitoring using Go (golang) agent.
- Enhanced Portal with HTTP `Via` header (in Lua OpenResty extensions to nginx), so proxied services can respond appropriately across staging and production environments.
- Deployed updated Motor with new Secrets to OpenShift cluster using Helm Charts.
- Assisted other teams with questions about OpenShift, Helm Charts, s2i and Docker-based builds.

(startup in Information Security sharing)

February 2015 to November 2018
Soltra Engineer
- Turned User Interface mockups into working clickable front-end code, including charts.
- Built extensible ETL framework to import widely-varying data (CSV, JSON, RSS, XML, etc.) into STIX/CybOX (in Python/Django).
- Converted team from npm to yarn to increase development team happiness.
- Proposed and demonstrated potential code and standard enhancements to the open-source STIX/CybOX standards bodies (governed by OASIS).
- Integrated Big Data backends to handle millions of records.
- Crafted custom MongoDB code to correct data issues for clients.
- Collected and streamlined on-boarding and internal process documentation.
- Built pluggable Python/Django apps to extend core application functionality.
- Worked closely with CEO and Product Team to refine product feature requirements.

(video translation provider for deaf telecommunications)

Feb 2015 to Jun 2015
Principal Engineer
- Reduced Python style (PEP-8) violations from 40,000+ down to zero by aggressively beautifying code with reporting via Jenkins.
- Aggressively authored Python, JavaScript and browser unit tests for back- and front-end code and integration (PyUnit, QUnit, Selenium).
- Transformed legacy monolithic code into tight modules for maintainability.

(nationwide health insurance provider)

Sep 2013 to Feb 2015
Senior Development Team Lead and Web Application Architect
- Implemented bug fixes and new features in MyCigna Python/Django application.
- Implemented a Python Package Index on Nexus Artifact store to streamline development.
- Lead daily stand-up scrum meetings for a distributed team.
- Standardized deployment process.

- Triaged critical issues on Production servers, when needed.
- Deployed and maintained internal cloud application servers for various stages of testing.
- Copiously documented the platform, on-boarding documents and the future roadmap.

(international provider of operating systems and open-source software)

Jan 2011 to Dec 2013
Software Developer and Subject-Matter Expert on SAML 2.0 Security Integration (contract)
- Built secure Python/Django Identity Provider to connect Ubuntu users to SalesForce.com and Google Apps.
- They hired me as a SAML 2.0 expert based on my open-source library:
  https://github.com/guitarmanvt/django-saml2-idp

(niche investment advisors with technology focus)

Jan 2011 to Jun 2013
Web Application Developer
- Employed and trained a Python/Django developer to service this client.
- Mentored junior developer in RML-based PDF report creation with Python/Django.
- Built custom ETL tools in Python/Django to import/export account and transaction data to/from multiple financial sources.

(global entertainment and communications company)

Sep 2012 to Feb 2013
Web Application Developer
- Migrated PHP websites to more-efficient Python/Django platform and polished look-and-feel.

(nationwide Christian ministry organization)

Jul 2012 to Sep 2012
Web Application Developer (contractual)
- Mentored another contractor during a development contract.

(international Christian linguistics organization)

Python Developer, Systems Architect, and Integrator
- Coordinated significant changes to the corporate Software Development Life Cycle (SDLC) with other departments.
- Lead scrum team in several Python/Django projects.

(regional gas measurement services provider)

- Programmed RS-232 serial communications link between PCs and specialized machinery.

Selected Skills

- API Development (6 years)
- Agile Development Methodology (10+ years)
- Algorithm Programming (10+ years)
- Amazon Web Services (3 years)
- Analysis of Business Problems and Solution Discovery (10+ years)
- Automation of business processes (9 years)
- Boto3 Python Integration for Amazon Web Services
- Business Process Analysis, Documentation and Implementation (10+ years)
- Celery Distributed Task Queue (4 years)
- Code Coverage (4 years)
- Computer and Network Security (10+ years)
- Continuous Integration, Code Quality and Test-Driven Development (TDD) (6 years)
- CybOX Information Security Standard (4 years)
- Cyber Threat Intelligence (4 years)
- Databases and Protocols (10+ years)
- DevOps (10+ years)
- Django REST Framework (4 years)
- Django Web Framework (10+ years)
- Docker and docker-compose
- Full-stack Web Developer
- git/GitHub/GitLab, hosting, Issues and Pull Requests (10+ years)
- Jenkins BlueOcean Pipelines (1 year)
- Jenkins Continuous Integration Server Configuration and Management (6 years)
- Kubernetes (2 years) *there's a lot under this heading
- Mentoring (9 years)
- NewRelic Application Monitoring (1 year)
- OpenShift Origin and OKD (1 year)
- PEP-8 code style (5 years)
- Peer Code Review (9 years)
- Python Unit Testing
- Python programming language (10+ years)
- REST APIs (6 years)
- SAML 2.0 (9 years)
- SSH secure shell usage and administration (6 years)
- Scrum Agile Development Methodology (10+ years)
- Selenium browser-based testing and headless automated testing (7 years)
- Software Architecture (10+ years)
- Software Development Life Cycle (10+ years)
- Software Framework Architecture and Implementation (10+ years)
- Team Leadership (10+ years)
- Technical Documentation Authoring (10+ years)
- Test-Driven Development (5 years)
- bash scripting (7 years)
- flake8, pylint, and pyflakes static Python checking (5 years)

Education

Bachelor of Science in Computer Engineering
Virginia Polytechnic Institute & State University (Virginia Tech)
Blacksburg, Virginia