

Joshua Ringer

Software Engineer, writing and designing tools, pipelines, and services since 2008.

Proficient in all aspects of software delivery: architecture & design, coding, testing, deployment, system management, support, and 3rd party service administration.

Proven experience leading a team, managing multiple projects, and providing technological guidance across departments.

Skills

Python	tox	pytest	flake8	Black	mypy	iPython	Jupyter	Flask
	Django	Fabric	requests					
Cloud	AWS	Lambda	SQS/SNS	IAM	S3	API Gateway	Step Functions	
	DynamoDB	ECS	CloudWatch	Docker	Vagrant	vSphere		
DevOps	git	svn	Terraform	Vault	GitHub	GitLab	Jenkins	concourse
	Make	pip	npm	Gradle	CMake			
Systems	Bash	systemd	initd	cron				
Web	PHP	JavaScript	HTML	CSS	JSON	YAML	XML	SQL
	nginx	httpd (Apache)						
Comms	TCP/IP	HTTP	RTP	SIP				

Employment

Apr 2018–Present

Spire Global, SG

Payload Automation Engineer

A member of a tight-knit satellite payload team supporting payload operations for a fleet of ~50 units, authoring pipeline services for managing the payload, and managing software devops + automated testing.

Developed and managed services for configuring & upgrading payload software, and for processing its data products.

Coordinated and managed payload recovery with satellite operations team, ensuring a healthy fleet.

Projects

- Payload configuration and data ingress pipelines on AWS serverless technology (Step Functions, Lambda, ECS, S3).
- Blue/green deployment, CI pipelines, with managed infrastructure via Terraform.
- Unattended upgrade system, controlling packaging, upload, and scheduled execution.
- Custom website, Grafana dashboards for monitoring payload health and operations.
- Payload software, hardware-in-the-loop testing.

Oct 2017–Mar 2018

AMaaS, SG

Software Engineer

Working with a small team at a fintech startup building Argomi, a serverless asset management service.

Assisted development of the backend API: A series of Lambda-based microservices built on AWS, making use of the Python Chalice framework, along with several AWS features such as CloudFormation, Cognito, DynamoDB, RDS, SNS.

Projects

- Overhauled deployment process to make full use of CloudFormation.
- Built a fully asynchronous import process.

May 2015–Apr 2017

Asia Genomics, SG

Senior Application Developer / Technical Project Manager

Joined company of <20, managed company IT (services such as Office365, Dropbox, network infrastructure), developed company website, e-commerce sites, and internal operational applications.

With company growth, oversaw purchase & deployment of equipment and infrastructure, as well as outsourcing of some development projects.

Hired and ran both the IT team and a 3-person development team; provided insight and guidance to business functions.

Projects & Tech

- Custom e-commerce site built on PHP+PrestaShop, deployed on AWS EC2+EB+RDS.
- Web app, Python+Flask+Swagger backend running trained Keras NN.
- A number of WordPress, Shopify sites, custom-themed.

Apr 2013–Apr 2015

Cisco Systems, CA, USA

Senior Test Automation Engineer

Local test automation expert for a group of ~30 within the Collaboration Technologies Group producing the Virtual Telepresence Server and next-generation Telepresence Server products.

Responsible for developing, maintaining, running, and evaluating automated tests and the test environment, in collaboration with teams in the UK and Norway.

Contributed toward project test planning; provided guidance on automation activities.

Coached team members on automation and provided guidance on writing new test scripts and tool usage.

Projects & Tech

- Custom Python test environment, targeting VMware virtualised servers.
- Large-scale multi-server harness controlling 100's of endpoints and servers.

Jul 2010–Apr 2013

Cisco Systems, UK

Test Tools Team Lead

Led a small team responsible for developing and maintaining test tools and services for a campus of ~200, providing test coverage for all telepresence infrastructure products developed by the group.

In charge of designing and providing direction for all of the team's projects, including various web services, a large distributed automation system, and a video endpoint simulator, all developed in-house.

Responsible for prioritising any user requests and issues, providing (or redirecting) any support required. Proud supplier of team beanbags, essential seating for productive and innovative team discussions.

Projects & Tech

- Custom Python test environment, product control libraries.
- Jenkins CI orchestration, distributed automation + stress testing system.
- C++/Python wrapper simulated SIP endpoint.
- Python+Django test management website.

Sep 2008–Jul 2010

Tandberg, UK

Test Development Engineer

Developed and maintained the group's test automation framework, along with main test and result-tracking website, and provided support for both.

Mentored other test team members in script-writing and use of the framework.

Projects & Tech

- Custom Python test engine+framework, hand-written scripts.
- PHP result tracking website.

Education

Sep 2004–Sep 2008

University of Oxford, UK

MPhys, Physics

Achieved II:1 class degree, specialising in condensed matter, laser science, and quantum information processing.

Received a distinction in first-year exams, and was awarded a college scholarship.

Ultimate

What is Ultimate? youtu.be/KixMbFkrPIM

Current IT Director for Singapore's national association. Competed at World Beach Ultimate Championships 2017, World Masters Ultimate Club Championships 2022 for Singapore national team. Coached a local club team.

Regular competitor at multiple tournaments around the world.

Committee member at University, built club website, formed Alumni team in 2008 to compete at inaugural alumni tournament in the UK.

Updated: Sep 2022