

STEADY SUPPLY LTD

Curriculum Vitae, Ben Corser

June 29, 2020

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1 Statement

I am a programmer and systems architect with ten years professional experience, four in a lead role. My current professional focus is on the transformation and uplift of developer workflows to take full advantage of modern DevOps practices. I use my on-the-ground experience of writing code to find low friction routes to full cloud automation. When not in front of a computer, I pursue diverse nonprofessional interests and hold first class bachelor's degrees in both Mathematics and Fine Art.

2 Project history

Sept 2019 – March 2020 **Travelopia Holdings** travel brand portfolio

Working with a core engineering team comprising contract developers and in-house operations staff to evaluate current Amazon products offering IAC and container orchestration (CDK, ECS, EKS); seeking improvements in working practices. The findings of this investigation were used to produce backing infrastructure, a CI/CD pipeline and supporting developer tooling for AWS Lambda. The accompanying workflow was designed to provide a clear route from development to deployment. Through careful consultation with (and sometimes mediation between) individuals, a sophisticated AWS CloudFormation setup was produced, offering stable architecture whilst local simulation with Docker Compose gave facilities for low latency bootstrap and testing. In response to developer need, an open source tool was also produced: <https://steady.supply/git/kubect1-hotfix>

Stack: AWS (CloudFormation, EC2, API Gateway, Lambda, RDS), Kubernetes (bare metal), Docker, GitLab CI/CD, Python, Golang

January – March 2019 **Sony Computer Science Laboratory** fundamental research lab

Providing engineering support to the Language Team for a machine learning project, designing a workflow that would allow researchers to easily test their ideas in isolated environments and equally easily deploy satisfactory results to a production server. During my time at Sony CSL, I ran a series of well-received seminars teaching researchers from across the lab the basics and benefits of containerisation, using Docker as a teaching tool.

Stack: AWS, Packer, Terraform, Docker Compose, GitLab CI/CD, Python, Airflow, Neo4j

Oct 2018 – Jan 2019 **Farfetch** fashion retailer

Attached to a team of data scientists using machine learning to monitor prices of rivals, modernising and simplifying infrastructure and deployment processes. *“During his time at Farfetch, Ben made significant contributions to the project he worked on. His work was primarily on the infrastructure and deployment side of the project. During his time Ben was able to migrate our monolithic infrastructure into appropriate components, simultaneously splitting it into production and staging environments. He also made significant improvements to our deployment processes. Ben is easy to work with and was happy to tackle whatever problems we posed him. He was also happy to learn new technologies as required.”* – Thomas Furnston PhD, lead data scientist

Stack: GCP, Packer, Terraform, Docker, Docker Compose, Python, Airflow, BigQuery, PostgreSQL, Celery

June – October 2018 **Unmade** clothing customisation startup, lead role

Helping cover team leadership between CTOs; mentoring employees and assisting with day-to-day development. I was charged with advising the team on best practices regarding automated testing, the usage of Docker for developing and deploying microservices, usage of Git for effective version control, using PyPI for package management, etc. Alongside this, I implemented a microservice to optimise user-uploaded vector graphics and ran tutorial sessions on pytest and Git.

Stack: Python, Scala, Node.js, Docker, AWS (ECS, ECR, Lambda), CircleCI, pytest, Celery

Oct 2017 Jan 2018 **Lyst** fashion search engine

Maintenance and overhaul of page indexing system with respect to data quality.

Stack: Docker, CircleCI, Python, Django, pytest

July August 2017 **Origami Energy** energy sector, IoT

Service exposing results of Spark aggregations over metrology data as a web API. Replication of commercial Hadoop stack for infra tests, aggregation of data residing in a Cassandra database using PySpark, synchronised with Python RQ and persisted using SQLAlchemy in a PostgreSQL database for retrieval by the web service.

Stack: Heroku, Docker, Datastax Enterprise (Hadoop, PySpark), Alembic, SQLAlchemy, Python RQ, Node.js

July 2016 June 2017 **Dept. of International Trade** public sector, lead role

I led a team producing a prototype followed by production ETL and synchronisation layer to allow a Django app to use a heavily customised MS Dynamics 2011 instance as a datastore. I also implemented a TF-IDF model for matching companies with potential overseas opportunities to demonstrate possibilities presented by machine learning. We developed a comprehensive test suite written using CasperJS; forming end-to-end tests of the system.

Stack: AWS, Flynn, Heroku, Docker, PostgreSQL, Redis, Elasticsearch, Jenkins, CircleCI, Python, gunicorn, SQLAlchemy, Huey, Pyramid, Sklearn, Pandas, pytest, JavaScript, CasperJS, VueJS, Mocha

Feb 2014 June 2016 **Desktop Genetics** bioinformatics startup, lead role

Design and implementation of data processing pipeline optimising publicly available genomic data for our application. Setting up and maintaining systems for continuous integration, configuration management, automated deployment. Low-level code and web API for genome search and scoring algorithms. Mentoring front end developers; implementing web front end allowing non-technical staff to deploy developer code to test servers for QA; implementing web API for CRUD operations; domain-specific web API for genomic data.

Stack: AWS, Google Cloud Platform, Digital Ocean, Hetzner, SaltStack, Ubuntu, PostgreSQL, Redis, nginx, uwsgi, Buildbot, C, Python, SQLAlchemy, Alembic, Celery, Huey, Pyramid, Vue.js

2012 Feb 2014 **Rockabox** high-volume ad serving system

Migration from MySQL and Django ORM to PostgreSQL and SQLAlchemy, implementation of an “expression graph” query builder.

Stack: AWS, Chef, Ubuntu, MySQL, Hadoop, Hive, PostgreSQL, Redis, Python, Pandas, Numpy, SQLAlchemy

2009 2012 **Early projects** various

Independent work and various projects for Reed Foundation, LOVEFiLM, Spike Island, Works Projects, Gravitywell.

3 Qualifications

2019	BSc Mathematics	Birkbeck College, London	First Class Honours
2009	BA Fine Art	UWE, Bristol	First Class Honours
2004	A-levels in Mathematics and Graphic Design		

4 Security clearance

Security Check (SC) <https://www.gov.uk/guidance/security-vetting-and-clearance#applicant> “*determines that a person’s character and personal circumstances are such that they can be trusted to work in a position which involves long-term, frequent and uncontrolled access to SECRET assets*”

Disclosure Scotland, Standard <https://www.mygov.scot/standard-disclosure/>