STEADY SUPPLY LTD
Ben M. Corser

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Statement

I am a data engineer and application developer with over 7 years professional experience. My current focus is the creation of web applications and data management systems using Unix, PostgreSQL, Python and related technology. I am an experienced programmer and have a high level of familiarity with the library ecosystems for my languages. I specialise in rapid prototyping to answer questions early, but also have a good awareness of devops concerns and am comfortable writing production-ready code. I am a friendly person with a can-do attitude and an inquiring mind. I enjoy finding solutions to difficult and unusual problems whilst writing tested, terse, readable, efficient code. I am up front and honest, but not dogmatic in my technical opinions. I write a technical blog and contribute to open source.

Skills

Programming languages

Python	Advanced	7 years
C++	Beginner	2 years
JavaScript	Advanced	9 years
SQL	Intermediate	8 years
Bash	Intermediate	7 years
NodeJS/ES6	Intermediate	3 years
Rust	Beginner	2 years
Elm	Beginner	2 years
Haskell	Learner	

Asynchronous messaging

AMQP (RabbitMQ)	Intermediate	3 years
ZeroMQ	Beginner	1 year

Container technology

Docker	Intermediate	3 years
LXC	Beginner	1 year

Operating systems

Ubuntu Linux	Advanced	9 years
Arch Linux	Intermediate	2 years
Mac OS X	Intermediate	5 years

Storage and database

PostgreSQL	Advanced	6 years
MySQL	Intermediate	6 years
MongoDB	Advanced	3 years
CouchDB	Beginner	1 year
Redis	Advanced	5 years
Memcached	Intermediate	2 years
Cassandra	Beginner	1 year

Front end web development

(X)HTML	Advanced	9 years
AJAX	Advanced	7 years
OPA/SPA	Intermediate	5 years
Angular	Intermediate	2 years
Vue.js	Advanced	2 years
Vuex	Intermediate	2 years
Webpack	Intermediate	2 years
Require.js	Advanced	5 years
Mocha, Chai	Advanced	4 years
Lodash	Advanced	5 years
Durandal	Intermediate	2 years
Elm architecture	Learner	

Back end web development

Django	Advanced	7 years
Pyramid	Advanced	5 years
Celery	Advanced	7 years
Flask	Advanced	7 years
Bottle	Intermediate	2 years
Klein	Beginner	1 year
Huey	Advanced	3 years

Data processing and machine learning

SQLAlchemy	Advanced	7 years
Alembic	Advanced	5 years
Pandas	Intermediate	6 years
Bowtie	Intermediate	2 years
Sklearn	Beginner	2 years
Hadoop	Beginner	2 years
Spark	Intermediate	1 year

Project history

September 2017 - <u>Dept. of International Trade</u> (2 weeks), public sector
Short project to update libraries and provide some consultancy for internal systems. See June 2017 engagement for more information.
Stack: Docker, Postgres, Redis, ElasticSearch, Jenkins, CircleCI, Python, gunicorn, SQLAlchemy, py.test

June 2017 until August 2017 - <u>Grow Software</u> (3 months), a 3D-printing startup
Expansion of previous project with permissions model (based on Unix permissions) and and real-time "push" updates to the browser using Websockets.
Stack: JavaScript, NodeJS, RequireJS, Websockets, Karma, Mocha, CasperJS

Feb 2017 until April 2017 - <u>Cubik Labs</u> (3 months), data visualisation startup
Service exposing results of Spark aggregations over IOT metrology data as a web API. Replication of DSE stack for infra tests, aggregation of data residing in a Cassandra database using PySpark, synchronised with Python RQ and persisted using SQLAlchemy in a Postgres database for retrieval by the web service.
Stack: Heroku, Docker, Datastax Enterprise, PySpark, Alembic, SQLAlchemy, Python RQ, NodeJS

July 2016 until Feb 2017 - <u>Dept. of International Trade</u> (8 months), public sector
Simple TFIDF project for matching companies with potential overseas opportunities to demonstrate possibilities presented by machine learning. 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. Front end test suite written using CasperJS forming end-to-end tests of the system.
Stack: AWS, Flynn, Heroku, Docker, Postgres, Redis, ElasticSearch, Jenkins, CircleCI, Python, gunicorn, SQLAlchemy, Huey, Pyramid, Sklearn, Pandas, py.test, JavaScript, CasperJS, VueJS, Mocha

June 2016 until August 2016 - <u>Grow Software</u> (3 months), a 3D-printing startup
Short project to deliver a NodeJS client for MongoDB with browser component, allowing AngularJS framework users to access remote datastore. The project was unit tested with Mocha and E2E tested using CasperJS.
Stack: JavaScript, NodeJS, ES6, RequireJS, Karma, Mocha, CasperJS

Feb 2014 until June 2016 - <u>Desktop Genetics</u> (2 years), a bioinformatics startup
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; genome explorer GUI allowing users to browse genomes at transcript and basepair level, with annotations and translations; implementing web API for CRUD operations; domain-specific web API (for genomic data, hence range queries, etc).
Stack: AWS, GCP, Digital Ocean, Hetzner, SaltStack, Ubuntu, PostgreSQL, Redis, nginx, uwsgi, Buildbot, C/C++, Python, SQAlchemy, Alembic, Celery, Huey, Pyramid, AngularJS, RequireJS, KnockoutJS, Durandal, Vue.js

Feb 2012 until Feb 2014 - <u>Rockabox</u> (2 years), high-volume ad serving system
Overhaul of reporting system from MySQL and Django ORM to PostgreSQL and SQLAlchemy, allowing the implementation of an "expression graph" query builder GUI. I was allowed to open source some of this code:
https://github.com/bmcorser/expr
Stack: AWS, Chef, Ubuntu, MySQL, Hadoop, Hive, PostgreSQL, Redis, Python, Pandas, Numpy, SQLAlchemy

2010 - Early projects (2 years) Reed Foundation, LOVEFiLM, Spike Island, Works Projects, Gravitywell
Various smaller projects including a web-based library loans system, an internal blogging system and a donation matching system.

Qualifications

2019 **BSc Mathematics**   Birkbeck College, London
2009 **BA Fine Arts (First Class)** UWE, Bristol
2004 A-levels in Mathematics and Graphic Design

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/