# **Tyrel Souza**

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Senior Software Engineer with focus on Python, Django, Go. Technology enthusiast and IOT tinkerer. Private pilot. Amateur radio operator.

#### **EXPERIENCE**

# **EverQuote** — Boston, MA — Senior Software Engineer

**January 2022 -**

- Ported a Python2.7 monolith to Python3 microservices.
- Automated a daily task for two analysts to be able to be run in only a few moments which saves 18 hours per week of analyst time.
- Built a UI for manipulating database settings to aid in automating work for analysts.
- Migrated a handful of repositories from CircleCl testing to GitHub Actions.
- Ported multiple long running scripts from Python2.7 to Python3.
- Migrated some command line tools from Python2.7 to Python3.
- Migrated alerts system platform from PagerDuty to Opsgenie.

## Tidelift — Boston, MA — Software Engineer III

**April 2018 - December 2021** 

Command Line Interface<sup>1</sup>

- Developed binary CI/CD tool in Go to analyze software dependencies for security/licensing problems
- Added ability to create users and manage repositories from the command line
- Expanded personal project into company product

Tidelift core redesign and pivot

- Pivoted from solely a vulnerability scanner to supporting a catalog of open source dependencies
- Part of small team developing Tidelift 2.0/3.0
- Developed front end Vue, and back end Ruby on Rails

Expanded open source code under libraries.io<sup>2</sup> to support more languages.

- Added new languages manifests support
- Programmed in multiple projects with code all available as open source on github
  - Bibliothecary<sup>3</sup>: Added ability to detect dependencies in manifests for Poetry, pip-compile, pipfile,
    Conda
  - Conda Parser<sup>4</sup>: Developed ingestor of Conda environment files, parsing environment.yml files
  - Conda API<sup>5</sup>: Programmed web scraping of Anaconda to detect new packages, and REST API endpoints for packages

## Addgene — Cambridge, MA — Software Engineer

March 2015 - March 2018

- Wrote Django REST Framework API server behind a token-authenticated NGINX server
- Rewrote file storage backend to keep on Amazon S3 instead of local in-house file system
  - Released my own custom Django module as a result
- Trained non-developers in Python
- Helped start and expand a "non-developer developer" club

<sup>&</sup>lt;sup>1</sup> https://tidelift.com/cli

<sup>&</sup>lt;sup>2</sup> https://github.com/librariesio/

https://github.com/librariesio/bibliothecary

https://github.com/librariesio/conda-parser

https://github.com/librariesio/conda-api

- Wrote an API with Python/Flask that the front end could communicate with
  - Checked if email was a valid user in Salesforce, then sent the user an email from a template
- Rewrote the backend for an internal dashboard to load data in 0.1 second, down from 10 seconds

# **Propel Marketing — Quincy, MA — Software Engineer**

September 2012 - July 2014

- Built CMS to host and build hundreds of customer websites using Django, jQuery, Bootstrap
- Created custom widgets, custom styling, custom templates, and more

# Appropriate Solutions Inc — Peterborough, NH — Software Developer

July 2010 - September 2012

• Built multiple client websites in Django, jQuery, Bootstrap.

#### **SKILLS**

- Python, Go
- Django, Flask
- Linux, Docker
- Git, Mercurial

- Postgres, MySQL, MariaDB
- Amazon AWS (S3 mostly)
- Google Cloud Storage
- REST APIs

- Kafka, Redis, memcached
- Sidekiq, RabbitMQ, Eclipse Mosquitto

#### **EDUCATION**

Keene State College - B.S. Applied Computer Science, Minor in Mathematics, Dean's List

## **PERSONAL PROJECTS**

# Django DBFileStorage<sup>6</sup>

• Goal: to continue running CI tests on a remote storage when working on moving file storage to S3 without incurring additional AWS charges.

### **VOLUNTEERING**

Boston Athletic Association Amateur Radio Operator - 2019 Boston Marathon

<sup>&</sup>lt;sup>6</sup> https://gitlab.com/Tyrel/django-dbfilestorage