Brian May

Resume

Objective

I am a Senior Software Engineer with many years experience. I seek opportunities that allow me to constantly improve my knowledge and performance by learning new skills, and contribute to the community through open source projects.

Skills

I keep my skills up to date by a combination of professional work, personal projects, and open source projects I contribute to. I also attend the PyCon AU conference annually.

Software Engineering
I am experienced with Python, JavaScript, CSS, TypeScript, and Elixir. I have developed software using numerous frameworks such as Django, Django Rest Framework, Django Channels, Geos, React, Angular, Phoenix Framework, and Nerves.

My projects use continuous deployment (CD) meaning after every git push the code will automatically be tested, docker images built, and then automatically deployed to my Kubernetes cluster. This is typically implemented with tools such as Jenkins, Travis or CircleCI.

Presentation
I have given talks at Conferences and local user group meetings based on my software developments.

- Karaage talk at PyCon AU 2015.
- Robotica talk at LCA2018.

Computer Admin
I keep my Linux skills up to date by maintaining computer and network systems for personal use. I also attend the Linux.conf.au conference on an annual basis.

At home I maintain a CISCO ADSL router, a UniEdge Router, and a UniEdge switch which supports a number of VLANs and a server running a number of virtual machines using ProxMox (KVM and LXC). This network fully supports IPv4 and IPv6.

Computer Security
All of my personal websites fully support secure SSL encryption that gives good results when tested with Qualys SSL Labs. My DNS records have DNSSEC security. I use GNU Privacy Guard (GnuPG) for digital signature, especially with signing of packages for Debian.

Projects

Many of my skills come from open source projects. These are available on github.

Various web services I have accounts on:

- Homepage - https://linuxpenguins.xyz/brian/
- Stack Overflow - http://careers.stackoverflow.com/penguinbrian
- Github - https://github.com/brianmay/
- GitLab - https://gitlab.com/u/penguin_brian
- Linkedin - https://www.linkedin.com/in/brian-may-44824521

The following is a list of some of the more significant projects I have been involved in, both open source and proprietary. A more complete list is available on request as part of the Appendix to this document.

2020 to present

BUPA Technologies: Python, Django, MySQL
Employer: WSP Digital
Client: BUPA

Upgrade legacy project that uses Python 2.7, Django 1.9 to use Python 3.8, Django 2.2, and Docker containers for deploys.

2019 to present

Geotechnical Digitisation Technologies: Python, Django, PostgreSQL
Employer: WSP Digital

A Django/Python/Geos application for recording details of boreholes.

I am responsible for updating the backend code to as per requirements for the front end.

Energy Rating Technologies: Python, Django, PostgreSQL
Employer: WSP Digital

An established application for storage and calculation of data used for energy efficiency star ratings used throughout Australia and NZ.

I am involved in support work for solving day to day issues that user's face as well as work to keep the code up to date with the latest legislation.

2018 to present

TeNerves Technologies: Elixir, Geos, Nerves, PostgreSQL, Robotica

A Nerves/Elixir based tool for automatically monitoring our Tesla and making warnings via Robotica to remind us to do things like plug in the car overnight for charging.

In writing this code, I learnt about using Ecto, a functional library for talking to an SQL database, from within a Nerves application.

Robotica Technologies: Elixir, Nerves, MQTT

A rewrite of the Python based tool using nerves/Elixir. This is a tool for management of events around my house on several Raspberry Pis.

In writing this project I learnt I lot about Nerves and how to create custom images for Nerves deployments.

DaRT   Technologies: Python, Elixir, Pandas, ElasticSearch, AWS
Employer: WSP Digital
Client: NSW Trains

Python/Elixir code to analyse and join multiple tables of different formats from multiple sources in order to generate statistics on trains such as dwell times and run times.

In writing this code I learnt about joining tables from different sources and how to do so in a fast and efficient manner.

2016 to present

MyRocc   Technologies: Python, Django, Geos, PostgreSQL, Cumulocity, ECS, Shippable
Employer: WSP Digital
Client: VicRoads

Website for management of IOT devices along freeways.

I contributed to a new greenfield development as a team using Agile management.

Online Forms   Technologies: Python, Django, PostgreSQL
Employer: WSP Digital
Client: FACS

Python/Django code for generic form based system.

I successfully contributed to a large complicated code base in a large team effort.

2010 to present

Karaage   Technologies: Python, Django, LDAP, MySQL, Slurm, AAF Shibboleth
Employer: VPAC ➜ UniMelb

A Django based python application for management of users on their super computer clusters using LDAP.

In working on this project I rewrite legacy code in such a way to minimize downtime and increasing the reliability of the code.

2000 to present

Spud   Technologies: Python, Django, PostgreSQL

A photo database using Django/Python for the REST back-end and Angular2 for the front-end.

This project has been valuable experience in learning how to efficiently store tree like structures in a SQL based backend. It has also enabled me to understand writing the client as a JavaScript based web app.

▬▬▬ Professional Experience ▬▬▬

WSP Digital   Senior Software Engineer,
May 2016 to present

At WSP Digital I am a Python/Django/JavaScript software developer. This

company does consulting work for a number of big clients. In working for this company I gained considerable knowledge in AWS services, such as EC2 and ECS. I also worked in different teams with different protocols for working together and diverse range of opinions. Such work can vary widely from websites for government clients through to dwell and run time calculations from signalling data for NSW trains.

VPAC Systems Administrator / Python Developer,
May 2006 to June 2015

Note: VPAC was also known as V3 Alliance.

Initially I was responsible for the administration of the desktop computers. This included management of their tape backup system (Tivoli Storage Manager) and management of their network. Later on, I moved to more Python programming.

Training

PyCon AU I attend this conference annually, since 2011. It helps me keep in touch with other Python developers and the latest Python techniques.

LCA Linux Conf Australia. I have attended the conference every year since 2003 and I have learned much about Linux. I am very involved in the Linux Community.

Animation Diploma of Screen (Animation), 3d animated graphics at Qantm College.

PhD Computer Security, Monash University.

Honours First Class Honours Bachelor, Digital Systems, Monash University.

Results include:

- Computer Science, High Distinction
- Software Development 2, High Distinction
- Digital Systems 2, High Distinction
- Computer Architecture, High Distinction
- Embedded System Design, High Distinction
- Digital Signal Processing, High Distinction
- Design of ASICS, High Distinction
- Microprocessor Applications, High Distinction

VCE Mallaurna Secondary College, 122 points out of 160 points.

Contact

The preferred way to contact me is though email at brian@linuxpenguins.xyz

Other contact methods are available on request.

If you use GnuPG for email security, my GnuPG key can be downloaded from the GnuPG key servers and has the following fingerprint:

```
pub   4096R/811F6EAC 2015-07-06 [expires: 2020-07-04]
```

```
        Key fingerprint = D636 5126 A92D B560 C627  ACED 1784 577F
811F 6EAC
uid                     Brian May <brian@linuxpenguins.xyz>
uid                     Brian May <bam@debian.org>
sub    4096R/CF139710 2015-07-06 [expires: 2020-07-04]
```

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