

David Briggs

Software Engineer

Contact

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Education

University of Waterloo
B. Computer Science
2015-2020

Website

dpbriggs.ca

GitHub

github.com/dpbriggs

LinkedIn

linkedin.com/in/dpbriggs

Time in Industry

4+ Years
Six internships
Two contracts
Full-time since Aug 2020

Skills Summary

Technologies:

- AWS
- Django
- Git
- React
- Redis
- Docker
- GRPC
- Unix & Shell tools
- CMake

Proficient in:

- Rust
- Python
- C/C++
- Bash
- Shell Tools
- Emacs & Vim

Work Experience

SOFTWARE ENGINEER (SPLUNK PHANTOM)

Sept 2019 - Dec 2019; Aug 2020 - Present

Maintain large Python/C++ code base with a focus on security and automation tooling.

- Refactored C++ daemons to be substantially more parallelized. Identified and updated designs to account for data safety issues and object lifetimes.
- Routinely find, field, triage, and resolve a variety of frontend and backend security issues.
- Focused on keeping the product legally compliant. From cross-team coordination to developing a truly accurate, 20X faster, licence attribution service.
- Developed a Docker solution for automating secure Python distribution generation.
- Regularly triage, investigate, and resolve critical performance issues.
- Refactored a C++ Python2 interpreter spawner to support Python3.
- Developed a Slack-style slash-commands automation feature in a C++/Django stack.

SOFTWARE DEVELOPER (ZENREACH)

Jan 2019 - Apr 2019

Helped engineer and deliver Google Ads integration for the Ads product.

- Spearheaded the Google Ads and Campaign Abstraction microservices, using Scala, GRPC, Postgres, and Redis.
- Engineered a generic caching strategy to improve metrics API speed by 20X in Scala with Redis and GRPC.
- Wrote detailed design documents for Databasing, Caching, Google Ads API usage, and Audience Generation, with JIRA tickets.

R&D SOFTWARE ENGINEER (OPENTEXT)

May 2018 - Aug 2018

Researched enterprise grade container solutions (Docker & Kubernetes).

- Developed a service discovery abstraction service in Python/Bash, used to increase flexibility of offerings and lower maintenance costs.
- Researched virtual machine snapshot style containerization with Kubernetes.

SOFTWARE ENGINEER (TRANQUANT)

Sept 2017 - Dec 2017

Designed and developed systems for software and container deployment.

- Developed a graph-based container framework with a React frontend.
- Significant Dev-Ops work with AWS; ECS, EC2, and more.

APPLICATION DEVELOPER (DOCTORCARE)

Jan 2017 - Apr 2017

Designed and Developed a medical digest report pipeline and website.

- Created a report-making pipeline to automatically collect, parse, and store medical finance information. Automated an eight hour manual job into a few minutes.
- Developed a Django website to create PDF finance reports, using Print CSS, Postgres, Redis, Weasyprint, Django templating & ORM.

Projects / Contracting

REDIS-OXIDE

March 2019 - Present

Protocol-compatible, multi-threaded implementation of Redis in safe Rust. Written with Rust, Tokio, and Serde. <https://github.com/dpbriggs/redis-oxide>

R&D SOFTWARE ENGINEER CONTRACTOR (OPENTEXT)

Sept 2018 - Dec 2018

Technically reviewed issues and projects to speed up development. Developed Kubernetes solutions further. Assisted new members with git, code review tools, and linux knowledge.

SYSTEMS CONTRACTOR (DOCTORCARE)

May 2017 - Aug 2017

Technically reviewed major projects and issues, saving up to 50% on development time. Assisted with co-op hiring process to ensure good technical fit.

Interests: Mathematics, linux, emacs, cryptography, working out, cooking.