Wes Mason

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PROFESSIONAL PROFILE
Wes is a polyglot software engineer with two decades of experience programming and deploying large scale networked applications, and 10+ years continued experience focusing on platform, build and site-reliability engineering, and infrastructure-as-code.

OBJECTIVE
I am on the look out for interesting new opportunities working closely with open source that improves the world, with a great focus on empathy and kindness to people.

EDUCATION AND QUALIFICATIONS

BSc: Computer Science (with Honours), University of Hull, 2006

BUZZWORDS, HO!

- NodeJS/JavaScript/TypeScript, Python, PHP, Perl, Go, Rust, Ruby, Scala
- Kubernetes, Helm, Chef, Puppet, Ansible, Juju, Terraform
- PostgreSQL, MySQL, MongoDB, Redis, RabbitMQ, HAProxy, Nginx, Apache, Vault
- Prometheus, Graphite, StatsD, Grafana, Elasticsearch, Logstash, Kibana, Nagios, Jenkins, Buildbot
- AWS, Google Cloud, Azure, OpenStack, IBM Cloud
- Release/build engineering, continuous deployment pipelines

PROFILES

- Code: https://github.com/1stvamp
- SO: http://stackoverflow.com/users/2228202/wes-mason
- Toots/Tweets: https://toot.cat/@1stvamp, https://twitter.com/1stvamp

SPEAKING

See my Speaking Repo.

CAREER SUMMARY

Aug 2023-present   Senior SRE, Search Developer Productivity, *Elastic*
July 2020-Aug 2023   SRE Lead, Search Enterprise Search, *Elastic*
June 2019-July 2020   Senior SRE, *Enterprise Search, Elastic*

- Shared maintenance and on-call duties of large infrastructure and code base that runs the Swiftype.com SaaS, a multi-million dollar revenue service, with infra deployed in AWS, GCP and IBM Cloud, both virtual and bare metal.

- Lead changes to on-call responsibilities, surfacing of issues, automation of ticket assignment, compliance procedures, and practices for dealing with a hectic infrastructure team's duties. Ask me about our security compliance improvements. ;-)

- Lead DC and operating system migration of staging environment, distributed metrics system and cross-DC network monitoring solution.

- Lead changes to team communication, collaboration with other SRE / platform groups, and engineering best practices.

- Lead yearly SOC2 requirements gathering, auditor interviews, penetration test triage/response, and post-audit remediation efforts.

- Recognised Security Champion having worked closely with Infosec, Assurance and Product Security teams.

- Lead and executed TLS 1.0/1.1 end of life across the Swiftype platform, including customer email comms and [website tutorial and changes to our JavaScript search bar](), with the potential to affect our customer's customers across 10s of 1000s of websites; the migration had zero downtime and only positive feedback from customers.

- Lead benchmarking Elasticsearch RBAC/ABAC security at scale, large dimension vector searching.

May 2018-Jun 2019   Staff Site Reliability Engineer, *npm, Inc*

- Part of the team responsible for, and have made direct contributions to an infrastructure that powers the worlds largest software registry serving 2-3 billion downloads *per day,* and planning for ever increasing scale.

- Refactored installation/environment scripts for SRE tooling, and refactored Terraform/Ansible configs to be easier to understand and faster to get bootstrapped.

- Deployment, monitoring and maintenance of npm Enterprise SaaS on large single tenant Kubernetes clusters on GKE.

- Incident leader on several large incidents affecting millions of users, showing a consistent record for prompt and thorough resolution with a focus on user-first solutions backed up by long term monitoring and iteration.

- Tech lead on a support chatbot and "service hub" infrastructure for securely accessing customer cluster microservices using cryptographically secure communication, internal SSO authentication/authorisation and detailed audit logging.

- Lead project to migrate DNS providers for the registry, website and services with 0 downtime, and decommissioned several custom services running as instances on EC2 and replaced with Cloudflare edge services and workers.

- Pairing and onboarding of new SREs and software engineers.

- Migrated 99% of the npmjs.org/npmjs.com infrastructure to automated loadbalancing, with great observability and monitoring of key traffic metrics.

May 2017-Apr 2018   DevOps Engineering Lead, *Verve.co*

- Reported directly to CTO on SRE/DevOps/Platform engineering, covering deployment, infrastructure and CI/CD responsibilities for the 30+ engineering org, and worked directly with Principals to coordinate efforts with different teams.

- Refactored the entire build pipeline for an 11 microservice mono-repo project, migrating from v1 to v2 of our CI provider (CircleCI) with optimisations and bespoke docker image build systems which took our build times down from 20-30 minutes on master down to 10-12 minutes, and an average of 6 minutes on individual branches, as well making builds idempotent and closely matching local development environments. I got a lot of ❤ for this is what I'm trying to say.

- Migrated the non-Heroku AWS components of our infrastructure to be handled by Terraform and ensured documentation and wrapper scripting is in place to allow any other engineer to pick up and use as they need.

- Worked closely with data science engineers to stand up mirrored Dbs they could work on (partially scrubbed for PII) "live" datasets, including VPN access to secured mirror clusters in AWS from data-science owned Heroku apps, and daily synchronization of production data to these mirrors.

- Refactored deployments to run asynchronously against multiple Heroku deployment targets / environments, shaving off more TOIL from the engineering workflow.

Apr 2014-May 2017   Senior Software Engineer, *Canonical*

- Developing, testing, maintaining and deploying code for automated deployment of the various services that make up the Ubuntu App Store (now the Snap store), as part of a team of infra/platform focused engineers.

- Re-deployed and modernised the deployment utilities / environment for the main endpoint for Ubuntu Apps / Snaps, giving developers full control and with no downtime (a full CI → CD pipeline based on Canonical's Juju automation software, and other open source stacks).

- Worked with teams to cross-pollinate ideas and utilities, bringing a DevOps way of thinking to peoples workflows, with a greater deal of communication and sharing.

- Lead the DevOps Guild to more greatly foster cross-functional knowledge sharing, and empathy between different teams.

- Re-factored, open sourced, maintain and speak at user groups about the conn-check network monitoring and verification utility, now used by pretty much every group doing operations at Canonical, and with a growing number of external users.

- First line on-call duties for the Ubuntu App Store.

Oct 2011-Apr 2014   Senior Product Engineer, *Server Density*

- Senior engineer leading development of Server Density v2, re-imagining SD as multiple SOA web services in whatever fits the bill (Python, Node, PHP etc.), and multi-cloud control plane (EC2/GCP integrated dashboard with instance control and automatic monitoring).

- This included a complete reimagining of the CI setup for ServerDensity, which until then was based on TravisCI, I lead the effort to migrate to an in-house Buildbot

based pipeline which used Travis compatible YAML files to build fully contained Python builds as hashed TARs, and a UI that allowed engineers to click a button and have any of those builds deployed to a tagged cluster (or individual server); if a build had passed QA it could be deployed right away, even if it was a from a branch, and would roll back automatically if tests failed during deploy.

- Traveled to conferences and user groups around the world giving talks on various topics, discoveries and project arising from v2 (codename Honshuu), as well as evangelising SD, including writing blog posts on a variety of engineering topics (development, debugging, performance, platform and infra).

- On-call operations duties, handling out of hours server admin and debugging of issues.

Aug 2009-Oct 2011 **Senior Developer*, Isotoma Ltd.***

Jun 2007-Aug 2009 **Developer*, Sense Internet***

Volunteer/Other Achievements

2015   *Leedshack winning teams (2 of them), Leeds*
2014   *Leedshack winner, Leeds*
2012-2014   *Founder/Curator, PHP Weekly mailing list*
2009-2011   *Volunteer, Leeds 2600 meetings, Leeds*
2003-2006   *Volunteer, FreeSide Network,* [*www.freeside.co.uk*](www.freeside.co.uk)
2006   *BCS Challenge winning team*

PERSONAL DETAILS

Interests include: Spending time with my wife and kids; Comic book authoring; Collecting pocket watches; Japanese martial arts; Drawing with pencils and inks; Baking cakes and bread.