Shaun Michael Verch

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Work Experience

Site Reliability Engineer, U.S. Digital Service

December 2020 - Present

- Collected healthcare interoperability research in preparation for transition
- Helped orchestrate quiet vaccines.gov covid-19 vaccine search tool launch

Site Reliability Engineer, Planetscale

January 2019 - November 2020

- Automated deployment of Kubernetes, supporting infrastructure on AWS, GCP
- Built monitoring stack and trained team in incident response
- Defined production readiness, ensured clear product status communication

Creator, Cloudless

July 2018 - November 2020

- Created Cloudless, a prototype for low level cloud portable deployment
- Deployed https://shaunverch.com, https://getcloudless.com using Cloudless

Site Reliability Engineer, U.S. Digital Service

July 2016 - July 2018

- Launched login.gov on AWS, Terraform, and Chef, now supporting 5 million users
- Supported quiet launch of qpp.cms.gov across 6 remote DevOps teams

Site Reliablility Engineer, URX

August 2014 - April 2016

- Designed and implemented a fully replicated multi-master datacenter setup
- Managed 5+ engineers and 30+ services in zero downtime datacenter upgrade
- Created lock free high performance persistent crawler queue

Database Systems Engineer, MongoDB

August 2012 - June 2014

• Core maintainer, wrote "willitlink" to fix massive dependency problems

Storage Engineering Intern, NetApp

June-August 2011, 2012

• Wrote automation and enhanced SCSI support for NetApp disk arrays

Education

B.S. in Mathematics / Computer Science - Brown University, Providence, RI M.Sc. in Computer Science - Brown University, Providence, RI

University Projects

Weenix - Implemented small Unix-like OS and ported from Xen to x86 emulator Capriccio Threads - Experimental work on light weight userspace threads library TCP over UDP - Implemented the TCP/IP protocol using UDP as link layer

Teaching Experience

<u>Conference Talks:</u> OSCON, MongoDB Days, Scale 11x, NoSQL Now

Online Class: M101JS: MongoDB for Node.js developers

Teaching Assistant: Operating Systems, Computing, Multivariable Calculus

Software Experience

Languages:

C, C++, Intel x86 assembly, MIPS assembly, Bash, Perl, Python, Ruby, Java, Scala, Golang, Rust, Javascript, PHP

Operating Systems: Linux, FreeBSD, MacOS

<u>Datastores:</u> MySQL, Vitess, MongoDB, Kafka, Elasticsearch, HBase,

HDFS, Ceph, Zookeeper

Data Processing: Hadoop Mapreduce, Apache Spark

Operations: AWS, GCP, Ansible, OpenVPN, Bind DNS, LDAP, sssd,

Apache Mesos, Jenkins CI, Chef, Terraform, Kubernetes