Benjamin Toll

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I am a lifelong learner who is not afraid to dig in and understand the foundational technology underpinning a tool, an operating system or a packet-switched network.

I follow my interests, which have been wide-ranging: I started in hardware and computer repair, spent more than a decade in software development and transitioned to DevOps in 2019. I've always used Linux and am passionate about continuing to deepen my understanding of it.

I am comfortable programming in languages like Go, C, Python, JavaScript, et al. and am able to quickly learn and become productive in new languages. I have experience programming both the frontend and backend of web applications, as well as libraries and CLI tools. Bash shell scripting is not a problem.

I have experience designing and building CI/CD pipelines using a variety of tools and have worked extensively with container technologies.

In my free time I play guitar and ride my farm around my tractor.

EXPERIENCE

Taos/IBM

Senior DevOps Engineer   Princeton, MA

June 2021 – October 2022

Working with several clients including GitHub, PagerDuty, etc.

Focused on:

- Developing and maintaining tooling.
- Container security.
- AWS cloud services such as S3, EC2, EKS, IAM, et al.

Consultant

Software Engineer and DevOps   Princeton, MA

January 2016 – Present

Work with several clients to develop full-stack applications written in JavaScript/React, Elm and Go with infrastructure in AWS and GCP. In addition, maintained Linux systems on-premise.

Deliver push button solutions that save clients countless hours every week.

Algorand

Senior DevOps Engineer   **Boston, MA**

November 2019 – February 2021

Responsible for package builds as well as maintaining in-house tools and Kubernetes build cluster

- Built a fully-automated package build pipeline running in Jenkins in a Kubernetes cluster. Includes creation of deb and rpm packages, testing, signing and deploying to hosted mirrors. This saved engineers and product managers countless hours every time there was a deployment and allowed them to concentrate on other tasks.

- Maintained and improved in-house task runner written in Python. Added plugin support and other enhancements which further helped to automate and streamline build pipeline.

- Wrote tests and documentation

Sencha Inc

Frameworks Engineer   **Redwood City, CA**

May 2013 - December 2015

Worked on the Ext framework as part of a remote team. My primary role was that of enhanced engineering.

- Fixed bugs that had been escalated by the Support team and/or by customer request.
- Patches (and tests) would then be merged into core.
- As the last stop in the escalation chain, worked on bugs that were very difficult and esoteric.
- Selected by manager to maintain viability of older product releases.
- One of the top framework contributors in the history of the company.
In addition, worked on new framework features and other projects within the company.

- Primary developer on the improved gridfilters API that shipped starting with Sencha 5.
- Resurrected the Sencha Fiddle project with my manager and developed several iterations of a working prototype before handing it off to its current maintainer.
Volunteered personal time to assist and mentor.

Sencha Inc

Senior Support Engineer   **Redwood City, CA**

June 2011 - April 2013

Hired when the department was first created and was the second support engineer added to the team. This was an engineering job and within the purview of the engineering department. All solutions were provided in code and patches to the framework were encouraged.

- Process support tickets generated by customers. This meant everything from answering general

questions about the framework and web development to (more usually) providing patches to fix a specific problem.
- As a senior member of the team was one of three team members that would be assigned the difficult escalated tickets to resolve.
- Promoted to the Ext frameworks team.
In addition, did a lot of work that was not part of my role or expected of me as a support engineer to help the team and the company. Examples include writing and maintaining tools that were used not only by the team but across the company. These included git extensions and bash tools.

Volunteered personal time to assist and mentor.

Yahoo!

Technical Yahoo   **Sunnyvale, CA**

November 2009 - May 2011

Worked on the Connected TV team. JavaScript running on TVs.

- Developed new applications to run on networked TVs.
- Contributed to the KONtx framework.
- Principal maintainer of several high profile applications (eBay, NFL, Y! TV).
- Very active in user forums answering questions and providing solutions in code.
Because there were no GUI devtools like that in the browser to help debug a program, became very good at thinking through problems and all iterations of them to try and anticipate bugs, which has helped tremendously in every role since.

GoDaddy

Web Developer   **Phoenix, AZ**

January 2009 - November 2009

Worked on the ecommerce team as the sole frontend developer.

EDUCATION

University of New Mexico, BA, History, 1996 - 1999

- 3.92 / 4.00
- summa cum laude
- Phi Beta Kappa
- Phi Alpha Theta

CERTIFICATIONS

Linux Professional Institute

- [LE-1: Linux Essentials](#)

<u>**ARTICLES**</u>

Containers and Container Technologies

- On Unsharing Namespaces, Part One
- On Unsharing Namespaces, Part Two
- On runc
- On Managing Docker Build-Time Secrets
- On Dockerfile Best Practices
- On Onionizing with Docker Compose
- On systemd-nspawn
- On Running systemd-nspawn Containers
- On Running a Tor Onion Service in a Chroot
- On Escaping a Chroot

Container-Related and Virtualization

- On eBPF
- On Getting Started with Kubernetes
- On Kubernetes Services
- On Virtual Machines
- On VboxManage

Packaging and Signing

- On Creating an APT Repository
- On Creating deb Packages
- On debsigs
- On Inspecting deb Packages
- On Inspecting RPM Packages
- On gpg-agent Forwarding

Hacking

- On the picoCTF Transformation Challenge
- On memfd_create
- On Fork Bombs

- On Escaping a Chroot
- On Stack Smashing, Part One
- On Stack Smashing, Part Two