

## BJ Black

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### Objective

BJ hopes to apply his extensive experience in Linux OS development, devops, release engineering, network security, software sustainability, and engineering leadership to help usher in a useful and safe future in the Linux device space, the IoT space, and/or the container and virtualization spaces.

### Highlights

- **C/C++, Go, Python, Java, Lua, perl, PHP** Development. Release engineering and CI testing via **Jenkins** and **Travis**, persistence via **MySQL, Oracle, Hibernate, TokyoTyrant (NoSQL)**. Virtualization development on **VMware, Xenserver, Hyper-V, AWS, Azure, Google App Engine**, et al. **Linux kernel** (driver, etc) development and OS distro and packaging.
- Lead inventor for [US Patent #10,044,677](#) - System and method to configure a firewall for access to a captive network.
- Honorable Mention in the **FTC IoT Home Inspector** contest, designing a solution to secure home devices in the Internet of Things space. See <https://gopinc.net>
- Software Sustainability Engineering Thought Leader, Including **Code Maintenance, Devops, Release Engineering, and Manufacturability**.
- Featured in **Business Insider's** "13 Secret Rock Stars Of Silicon Valley": <https://wjblack.com/rockstar>
- **IoT Development** Including Hardware Bringup, WiFi/Electrical Certs, **Linux Kernel**.
- **Hands-on** Technical Manager and reasonably prolific codewriter, writing approximately **20k SLOC/year**. Equally happy managing humans and writing code.
- Wide technical aptitude, from devops to hardware development.
- Open Source releases on Github -- See <https://github.com/wjblack>, active on StackExchange -- See e.g. <https://wjblack.com/stackoverflow>
- US Citizen with current passport.

### Work Experience

**2017 to Present - Platform Engineering Lead** at Eagle Eye Networks, building and maintaining a hybrid cloud platform video management system and working with embedded Linux, Docker, and manufacturing scalability. Responsible for all hardware and operating system work, including development of new customer premises equipment. Extensive manufacturing process automation, embedded/IoT-style networking, custom OS development, and hardware bringup and integration. Fairly extensive training and development of junior employees and support staff.

**2016 to 2017 - Founder** at Sustaining.Biz LLC, working with series B startups to develop software sustainability practices. Projects in the IoT, Devops, and Container (Docker) spaces. Code in Go and lua, plus kicad for PCB design. Further projects in Java EE (using Tomcat) and integration using Jenkins CI and Docker.

**2008 to 2016 - Director, Platform Engineering** for Barracuda Networks, Manager/Developer (beginning as a pure dev in 2008 with increasing responsibility over the years). Recent highlights include:

- 2016 - Hardware bringup, Linux kernel, manufacturability, and OS distro for the Barracuda SC-1 appliance (based on Allwinner/ARM SoC, board similar to Raspberry Pi). Agile team of 3 plus ODM and compliance test engineers. Code in C, perl, Go.
- 2016 - Hardware quality initiatives designing process and infrastructure for additional hardware QA. Agile team of 5 devs plus various manufacturing and technical support crew. Implemented on Docker in Go and perl.
- 2012-6 - (As Manager, then Director) Manage team of 6-20 engineers and sysadmins to deliver code to customers via manufacturing and continuing updates. 50% lower attrition when compared to peer managers.
- 2014-5 - Implement VM preboot architecture for licensure and virtual appliance maintenance including a custom embedded web server. Implemented using Linux kernel code in C, plus userspace code in C, perl, and Lua. Enabled deployment of Barracuda appliances in VMware, XenServer, Hyper-V, AWS, Azure, and other environments.
- 2012-4 - Create new OS platform based on CentOS including custom features. Code in C, perl, PHP. Integrated with Jenkins CI.
- 2008-2012 - (As Software Engineer) Kernel and hardware maintenance for the Barracuda platform. Code in C and perl.
- 2008-2010 - Integration of 3SP SSL VPN into Barracuda platform. Code in Java and perl.

**2006 to 2008 - OS Analyst** for San Jose State University, running UNIX/Linux infrastructure for the College of Engineering. Projects included a unified authentication/authorization system using PAM, LDAP, and synchronization using Java, perl, and a custom DSL for set arithmetic against database sets in MySQL and Oracle/PeopleSoft. Implemented PHP interpreter customization in C to increase security to the web server (reducing breaches from 1/week to 0/year (!)).

**2002 to 2006 - Lab Manager** for Sun Microsystems, running ~12 engineering labs on all fronts from rack-and-stack to a custom lab management program (Java + MySQL + LDAP sync using perl). Designed and implemented employee recognition portal (Java/J2EE + MySQL + Tomcat).

**1999 to 2002 - Hybrid Sysadmin/Developer** for Taos. Internal sysadmin managing Linux and Windows infrastructure including Citrix MetaFrame-based Windows Terminals, a custom CRM system in Visual BASIC, and an authentication system using PAM/NSS with a MySQL backend.

## Select Side Projects

**The Woofie Project** -- Virtual Dog implemented with ESP8266 WiFi Microcontroller, NodeMCU (lua), and a Go server backend on the Orange Pi.

**Fuminator** -- A J2EE-based document management system for California-based termite exterminators. Implemented on a customer site and maintained since 2004 (!).

## Education

**Bachelor of Science in Computer Science** from San Jose State University. 2008 Computer Science Outstanding Graduating Senior of the Year.

**Associates of Science in Business Administration** from West Valley College.

**Associates of Science in Engineering** from Mission College.