

Jared Dunbar

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Professional Summary

Passionate software engineer, with exceptional experiences and solid problem solving skills.
Experience with critical Production Linux systems, including Amazon Linux and RHEL.
Motivated Open Source developer, with Project Leader and Forum Moderator Experience.

Present Activities and Skills

- Kotlin - since 2018
- Python - since 2016
- Git - since 2015
- Java - since 2013
- RHEL/Fedora/CentOS/Amazon Linux - since 2018
- Arch Linux - since 2015
- Ubuntu - since 2012

Present Employment

Software Developer, AWS

Amazon Web Services

June 2020 - Present
Northern Virginia

- Infrastructure - June 2021 - Present
- Security - March 2021 - June 2021
- EC2 - July 2020 - Feb 2021
- Training - June 2020 - July 2020

Present Projects

Developer and Team Leader

Electrical Age and Eln2

November 2017 - Present
GitHub

- Electrical Age is a Minecraft modification that has realistic electrical simulations
- Worked with friends to develop new versions when original developers ceased releasing major updates
- Major components of the code are a circuit simulator that uses Modified Nodal Analysis and a thermal simulator
- Learning how to use various CI tools and code quality tools, including unit testing with test coverage reports

NixOS System Configurations

January 2020 - Present

- Streamline system administration across routers and homelab equipment
- Take advantage of atomic control of the OS and applications to do live changes at production level quality, with compelling rollback capabilities

Previous Experiences and Projects

Production Linux System Administrator I

November 2019 - March 2020

Mediacom Communications Corporation - IT Operations

Mediacom Park, NY

- Production Linux Administrator on RHEL servers powering millions of customers
- Daily monitoring and regular maintenance of multiple monitoring systems
- 24/7 On-Call Rotation experiences - able to handle complex situations in a pinch
- Multiple successful deployments to critical systems in multiple geographic regions
- Assist senior system engineers with upgrade planning to production infrastructure
- Provide highest tier support to application developer teams and engineers
- Work efficiently with remote teams and system engineers to solve problems
- Inventory management - write scripts to help gather information about servers from various environments and process it into one large concise inventory database
- Organize documentation into a quickly accessible format and archive old data
- Created new internal website from scratch to organize links and contacts

B.S. Computer Science, Minors in IT and Communications

August 2015 - May 2019

Clarkson University

Potsdam, NY

Head System Engineer

Clarkson University

Clarkson University - EE Compute Cluster

November 2017 - May 2019

- Seeded out directly by professors in the Electrical Engineering Department to create a production-quality computing cluster from scratch
- Designed, installed, configured, and maintained multiple Fedora systems

Lead System Administrator

August 2015 - May 2019

Clarkson Open Source Institute (COSI)

Potsdam, NY

- Held the role of Lead System Administrator for over three years, responsible for operating most systems (20+ servers) for day to day operations of 100+ users
- Lead multiple computer science outreach programs and create curriculum for the programs, teaching 5-12th grade students to get them interested in STEM fields
- Manage VM hosts, public FOSS mirror, websites, write extensive documentation
- Designed, implemented, and maintained Juniper and TP-Link networking hardware
- Deployed new 10G fiber hardware, Ubiquity WiFi, IPv6 upgrade, new redundant DHCP and DNS systems, firewalls, VPN's
- Managed budgeting, quoting for new servers, network hardware, end user systems

Helpdesk Linux Technician

January 2019 - March 2019

*Clarkson University - Office of Information Technology**Potsdam, NY*

- As Helpdesk Linux Technician, I was in charge of installing a few RHEL and Ubuntu systems for research professors who wanted Linux-based environments.

Server and Network Engineer

January 2018 - January 2019

*Clarkson University - Office of Information Technology**Potsdam, NY*

- Helped installing fiber network including running fiber optics, installing fiber patch panels, and certifying the communication links
- Helped deployment of Juniper switch network, including configuration of Juniper switches and converting from existing Cisco configurations
- Involved in maintenance of datacenters, deployed environmental sensor arrays to protect infrastructure, installed server and network hardware, keeping equipment inventory to support assets management
- Integrate Linux systems with Windows Active Directory
- Wrote internal monitoring software to enhance Nagios monitoring software suite, as a major component of a new end-user facing status page

TV Studio Systems Engineer

January 2018 - March 2018

*Clarkson University - TV Studio**Potsdam, NY*

- Re-designed entire television station after multiple critical hardware failures
- Did file recovery and attempted system repair to multiple video systems
- Worked with IT Department to coordinate streaming hardware and firewall exceptions for live ESPN broadcasts
- Created ingenuitive solutions to complex problems with limited tools and hardware
- Operated recording for Clarkson Ted X conference.
- Learned how to work with various video systems as well as balanced audio

Helpdesk Technician

September 2016 - December 2018

*Clarkson University - Office of Information Technology**Potsdam, NY*

- Tasked with installing computers, debugging technical issues on site, and dealing with classroom emergencies.
- Designed and implemented protocol documents for imaging and installing software on computers, to coordinate between multiple student workers who never see one another
- Front desk helpdesk support for many walk in's, including students and professors alike.

First Robotics FRC Team 3461

2012-2015

- Head Programmer in 2015 season
- Designed vision system for robot using LabVIEW in 2014 season
- Created standard re-usable library for robots in 2013 season

FLL Mentor

2011-2014

- Taught local FLL team how to program Lego NXT's and EV3's
- Showed students how to create solid designs that provided maximum build flexibility

Retail Associate

Spring 2014 and 2015

*White Flower Farm**Morris, CT*

- First experience with working one-on-one with customers
- Helped move heavy objects, water plants
- Handled checkout, fronted merchandise, connected customers with knowledgeable plant specialists when I did not know the answer

Lead Robot Designer, Programmer

2011, 2012 Competitions

- Programmed Lego NXT robots (custom designed) to complete three autonomous tasks
- In 2010, was the best robot there, among dozens of international college EE teams
- In 2011, won IEEE Award for Excellence, and Edward T. Preneta RoboWaiter Award for Best CT team

Additional Technical Skills**Programming**

Familiar with HTML/CSS, Bash Scripting, Ruby, Perl, Rust, LaTeX, Nix, ansible, proto3, and LabVIEW

Software

Experienced with iptables, dhcpd, nginx, systemd services and timers, Red Hat Satellite, Nagios XI, and Nagios Core

Worked with SLURM cluster, Asterisk VoIP, apache2, MySQL, sqlite, ansible, systemd-nspawn containers and machinectl

Experienced with Amazon Linux, Arch Linux, and NixOS, as well as many other random Linux-based OS's

Technologies

Experience with 802.1Q VLAN's, LACP, STP, SNMP, LDAP, Kerberos, DNS, DHCP

Experience with AWS Microservices and high availability design

Updated July 15th, 2021