

Brian Greenberg

SOFTWARE ENGINEER

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Work Experience

Teradata

ASSOCIATE SOFTWARE ENGINEER

San Diego, CA

Feb. 2019 - October 2020

- Core Developer for Stacki, an **Open Source** baremetal provisioning tool for **Linux** written in **Python**
- Enabled a consistent, reproducible, and automated deployment/upgrade of customer and internal systems
- Worked with **Jenkins** to create CI/CD pipelines for testing and delivering new software
- Used **Ansible** to automate deployments of various teams applications
- Provided extensive technical support to internal users and customers when upgrading systems
- Leveraged **KVM** for automated provisioning of Virtual Machines (VM) on Linux systems
- Created a library on top of the **Libvirt** api to generate VM configuration files
- Wrote a suite commands in existing framework to manage storage, networking, cpu, and memory settings of VMs
- Built relational database tables in **MySQL** to store VM configuration data
- Automated a previously manual process of setting up VMs on new customer systems
- Created a plugin based tool in Python for validating yaml configuration files on new systems

University of California, San Diego

APPLICATION PROGRAMMER

San Diego, CA

July. 2017 - Nov. 2018

- Created a **Flask** based web application for tracking fleets of Raspberry Pi's with **SQLite** and SQLAlchemy
- Worked on research project to create a **Python** based network firewall appliance
- Emulated a dedicated hardware firewall appliance using software and commodity hardware
- Utilized **Software Defined Networking** to implement firewall rules on network switch
- Implemented plugin functionality for custom firewall rule matching

University of California, San Diego

UNDERGRAD RESEARCH ASSISTANT

San Diego, CA

June. 2015 - June. 2017

- Redo display wall cluster for Professor by building a small cluster to power displays
- Package and deploy display wall software to cluster in an automated and reproducible fashion
- Configure networking and storage on **RedHat Linux** for cluster

Skills

Programming Python, Java, Ocaml, C/C++

Tools/Technologies Ansible, Artifactory, Bash, Docker, Git, Jenkins, MySQL, Redhat Enterprise Linux, SUSE Linux

Environments Linux, MacOS, Windows

Education

B.S. in Computer Science

UNIVERSITY OF CALIFORNIA, SAN DIEGO

San Diego, CA

2014 - 2017

Relevant Coursework—

- Data Structures, Algorithms, Operating Systems, Networking, Compilers

Projects

Personal Website

FULL STACK WEB DEVELOPMENT (IN PROGRESS)

- Use React, Javascript, NodeJS, and other web technologies to create a personal website

Virtual Machine GPU Passthrough

SYSTEM ADMIN

- Using **KVM**, **QEMU**, and **Libvirt**, made a Windows virtual machine running on a **Linux** system that has full 3D graphics acceleration.
- Used huge pages to increase VM cache performance and isolated guest graphics using kernel flags

Fun Stuff

- Prototyped a **GraphQL** based api for team's product in company hackathon
- Board member of UC San Diego's Computer Science Security Club last year of attendance