Brian **Greenberg**

SOFTWARE ENGINEER

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Work Experience

Teradata   *San Diego, CA*
ASSOCIATE SOFTWARE ENGINEER   *Feb. 2019 - October 2020*

- Contributed to 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 to manage storage, networking, cpu, and memory settings of VMs
- 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   *San Diego, CA*
APPLICATION PROGRAMMER   *July. 2017 - Nov. 2018*

- Created a **Flask** based web application for tracking fleets of Raspberry Pi's
- Used **SQLite** and SQLAlchemy to store data and login information
- 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   *San Diego, CA*
UNDERGRAD RESEARCH ASSISTANT   *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, Jenkins, MySQL, Redhat Enterprise Linux, SUSE Linux
Environments	Linux, MacOS, Windows

Education

B.S. in Computer Science   *San Diego, CA*
UNIVERSITY OF CALIFORNIA, SAN DIEGO   *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 attendence