

Claude M. SCHRADER

Devops Engineer with geospatial experience

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🔗 <https://claudeschneider.com>

Skills

Software: Adobe Illustrator, ArcGIS Online, ArcGIS Pro, ArcGIS Server, ENVI, Leaflet, Mapbox, Microsoft Office, QGIS

Programming Languages: HTML, JavaScript, Shell Scripting, Python, R, SQL

Database Technologies: MySQL/MariaDB, MongoDB, Oracle, PostgreSQL/PostGIS, Redis

Education

May 2019 **Professional Science Master's in GIS**, Temple University, Philadelphia, Pennsylvania

May 2004 **Bachelor of Science in Information Systems**, Drexel University, Philadelphia, Pennsylvania

Experience

🔗 Azavea, Philadelphia, PA (<https://www.azavea.com/>)

Acquired by 🔗 Element 84 in February 2023

Devops Engineer, November 2021 - May 2023

- * Provision and manage resources in Amazon Web Services using Terraform and Ansible
- * Configure docker images using docker-compose for deployment in AWS ECS (Fargate and EC2)
- * Optimize performance of hosted web applications using AWS Cloudfront, Elastic Load Balancers, and autoscaling rules
- * Upgrade Terraform environments from 0.11.11 to current
- * Develop bugfixes and performance enhancements for Django and other python-based backend services
- * Provision and manage CI/CD workflows on Jenkins and Github Actions

🔗 American Aerospace Technologies, Inc, Conshohocken, PA (<https://americanaerospace.com>)

GIS Database Developer, August 2019 - October 2021

- * Managed development, training, and optimization of our machine learning based threat detection system
- * Performed installation, testing, and troubleshooting for docker images containing our machine learning pipeline
- * Architected an automated workflow to publish raster and vector data to ArcGIS Server from an in-flight payload
- * Created a roadmap and specifications for proprietary geoprocessing and visualization software
- * Performed installation, testing, and created documentation for all software developed in-house
- * Automated GIS and business workflows with python, shell, and batch scripts
- * Queried, and optimized image databases running PostGIS/PostgreSQL
- * Created geospatial analyses using ArcGIS Pro and QGIS to support business and sales objectives
- * Planned and executed the integration of IT environments from two subsidiary companies across four locations

🔗 Temple University Remote Sensing and Sustainability Lab, Philadelphia, PA (<http://rsensus.org>)

Graduate Research Assistant, November 2018 - May 2019

- * Researched the implementation of deep learning technologies for Remote Sensing Data
- * Created a convolutional neural network for classification of satellite images using Keras and Tensorflow in Python
- * Downloaded and organized satellite and LIDAR raster imagery of the Peruvian Amazon from multiple sources
- * Used ArcMap, ENVI, and QGIS to evaluate the quality, clarity, and cloud cover of potential images
- * Used ENVI and R to preprocess and stack images, consolidating multiple bands of satellite data into one raster image
- * Normalized, masked clouds, and mosaicked multiple images using R, ENVI, and Machine Learning Tools

🔗 The Wistar Institute, Philadelphia, PA (<http://wistar.org>)

Linux System Administrator, October 2015 - January 2018

- * Consolidated legacy virtualization environments into VMware vSphere 6.5 with vSAN
- * Installed and managed Oracle 12c for a scientific application
- * Managed a 6 node EMC Isilon consisting of over 700TB of storage
- * Migrated an HPC Cluster from Rocks Cluster Distribution/CentOS 6.5 to Bright Cluster Manager/CentOS 7
- * Modernized an HPC Cluster scheduling environment, replacing Sun Grid Engine with Slurm Workload Manager
- * Managed redundant Sonicwall firewalls, HP switches, and a Pulse Secure VPN
- * Decommissioned a legacy Openstack cluster and migrated services to VMware

🔗 Telvue Corporation, Mount Laurel, NJ (<https://telvue.com>)

Devops Engineer, July 2013 - October 2015

- * Designed and managed a high-availability data center network
- * Researched and implemented a 3 node EMC Isilon for fast access to HD video
- * Managed a Linux KVM infrastructure of 60 Virtual Machines across 4 hypervisors
- * Migrated Virtual Machines into an oVirt install running on a 4 node HP Bladesystem
- * Supported a diverse Multicast IPTV network including equipment from Harmonic, Elemental, and Wowza
- * Provisioned and managed HLS, RTMP, and Silverlight streams with Akamai

🔗 Hit the Sticks, LLC, Devon, PA (<http://www.htssoft.com>)

Systems Engineer, March 2012 - May 2013

- * Designed and built a high-availability game server network using Ubuntu and Tiny Core Linux (<http://devblog.htssoft.com/search/label/linux>)
- * Built a virtualized development game server network, accessible only by VPN
- * Managed network devices including a Vyatta Router, Cisco Pix, and various switches
- * Installed and managed a centralized Redis datastore

🔗 University of Pennsylvania Center for Functional Neuroimaging, Philadelphia, PA (<https://cfn.upenn.edu>)

System Administrator, February 2010 - March 2012

- * Managed a 128 CPU cluster running Rocks Cluster Distribution and Sun Grid Engine
- * Migrated an 80 CPU cluster from Fedora to Ubuntu with custom post-install scripts
- * Maintained web services, email, mailing lists, NIS+ on Centos 5 based servers
- * Migrated our Virtual Machine Infrastructure from Xen to KVM

🔗 Parx Casino and Racetrack, Bensalem, PA (<https://www.parxcasino.com>)

System Administrator, July 2008 - January 2010

- * Maximized uptime of critical casino and racetrack systems in a 24x7 environment
- * Deployed updates and assisted with performance tuning on a high availability realtime online wagering system
- * Performed user management, backup, and other systems administration tasks on a pair of redundant IBM AS/400 systems

ITT Technical Institute, King of Prussia, PA

Instructor, Summer 2008

- * Instructor for one section of IT250, Linux Operating System

🔗 DCANet, Wilmington, DE (<https://dca.net>)

Network Engineer, October 2004 - July 2008

- * Migrated a large Philadelphia nonprofit's email, DNS, mailing lists, RADIUS, and websites from Solaris to CentOS 5
- * Installed network monitoring software including Nagios, MRTG, and Cacti
- * Implemented a companywide Jabber server on CentOS using ejabberd

Organizations and Volunteer Experience

Board of Directors, 🔗 Arcadia Commons (<https://www.arcadiacommons.org>)