

# Claude M. SCHRADER

## *Geospatial Analytics and Cartographic Design*

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### Profile

After a productive career in the IT industry, I enrolled in Temple University for a Masters in Geographic Information Systems, focusing on the intersection of open source technology, geospatial analysis, and cartographic design. Issues such as sustainability, urbanism, and poverty are especially important to me.

### Skills

**Software:** Adobe Illustrator, ArcGIS Desktop, ENVI, Leaflet, Mapbox, Microsoft Office, QGIS

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

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

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

November 2018 - May 2019, Graduate Research Assistant

- \* 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 in RStudio to preprocess and stack images from each geographic area, 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://www.wistar.org>)

October 2015 - January 2018, Linux System Administrator

- \* Consolidated legacy virtualization environments into VMware vSphere 6.5 with vSAN
- \* Installed and managed Oracle 12c for a scientific application
- \* Configured and updated Ansible Playbooks to manage base configuration of Linux servers
- \* Managed a 6 node EMC Isilon consisting of over 700TB of storage
- \* Migrated a 432 CPU HPC Cluster from Rocks Cluster Manager, CentOS 6.5, and Sun Grid Engine to Bright Cluster Manager, CentOS 7, and Slurm Workload Manager
- \* Managed fibre channel, SAS, and iSCSI SAN storage from Dell, Fujitsu and ACNC
- \* Managed redundant Sonicwall firewalls, HP switches, and Pulse Secure VPN
- \* Decommissioned a legacy Openstack cluster and migrated services to VMware
- \* Supervised migrating all services out of a legacy Server Room
- \* Implemented a tape-based Isilon backup system using a Crossroads Strongbox

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

July 2013 - October 2015, Devops Engineer

- \* Collaborated with developers to plan improvements to existing Chef workflow
- \* Designed and managed a high-availability data center network
- \* Created a high-availability cluster of Juniper SRX550 firewalls
- \* 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
- \* Managed a cluster of 5 Elemental Live transcoders

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

March 2012 - May 2013, Systems Engineer

- \* 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>)

February 2010 - March 2012, System Administrator

- \* 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
- \* Managed NFS services on SATA, SCSI, and iSCSI based ACNC storage devices
- \* Migrated our Virtual Machine Infrastructure from Xen to KVM

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

July 2008 - January 2010, System Administrator

- \* Maximized uptime of critical casino and racetrack systems in a 24x7 environment
- \* Managed virtual machines in a blade environment running VMware vSphere
- \* Administered and troubleshot a variety of Cisco switches
- \* Managed SSL and IPsec VPNs and firewall mappings on a Cisco ASA 5510
- \* Deployed updates and assisted with performance tuning on a high availability realtime online wagering system based on Adobe JRun, Mysql and Apache
- \* Implemented an rsnapshot server to provide hourly, daily, and weekly file snapshots
- \* 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

Summer 2008, Instructor

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

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

October 2004 - July 2008, Network Engineer

- \* Migrated a large Philadelphia nonprofit's hosted email, DNS, mailing lists, RADIUS services, and hosted websites from Solaris to cPanel running on CentOS 5
- \* Installed network monitoring software including Nagios, MRTG, and Cacti
- \* Implemented a companywide Jabber server on CentOS using ejabberd
- \* Migrated multiple different ticketing systems into an RT3 installation

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## Organizations and Volunteer Experience

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

Volunteer, East Kensington Neighbors Association Zoning Committee