Cameron Ratchford

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**WORK EXPERIENCE**

**Computer Modelling Group Jul. 2019 – Present**

*Technical Support Analyst Calgary, AB*

* As Technical Support Analyst, I am charged with the care and ongoing maintenance of CMG’s multi-domain/multi-forest AD environment, managing ~200 servers in 6 different countries. Of those servers, I am primarily responsible for the vSphere clusters (5.5, 6.0. 6.5, 6.7), building access system, and print management system. In addition, my duties also have me administering VOIP lines in FreePBX, user mailboxes in Exchange Online, managing software and OS deployments with WDS/AIK and SCCM, managing deployments and encryption in McAfee ePO, administering the O365 environment (licensing, Teams, SharePoint Online, Power Platform) and Active Directory (Users, Computers, Groups, GPO), and enrolling users in our 2FA server (using MultiOTP). The things that I enjoy doing most are creating automation tools and scripts with PowerShell / Python.
	+ Automated the process for onboarding users to Xerox Workplace Suite
	(Python and PowerShell)
		- Queried the Building Access System database for card data, reverse engineered a [Weigand Calculator](http://www.ccdesignworks.com/wiegand_calc.htm) to translate the access system values to the values Xerox needed (2 digit hex + 5 digit decimal for a total of 26 bits to 6 digit 26 bit hex). Then assigned the new data to an AD User object attribute for each user in the database. This process removed the requirement for users having to register their card prior to using the system for the first time (something the CEO requested).
		- Mapped each user’s private network share (not a roaming profile, you had to know which department the user was in as well as the subgroup) to an AD User object attribute for the Xerox software to deliver scanned documents to that UNC path as part of a “workflow”.
	+ Developed an automated process for provisioning users on our 2FA system for Citrix / Work from Home setup. (PowerShell)
		- Iterated through each member of the enterprise Users OU, recursively through child OUs. Checked for group membership to one of the 3 2FA AD groups (different departments). If the user was not present in any of the 3 groups, add the user to the correct group.
		- Add the user to the 2FA application database (MultiOTP, which uses SQLite3), generate the OTP seed from user account data (the numbers required to enroll a device using an app like Google Authenticator) , then generate the QR code based off of the seed.
		- Compose an email in HTML, including the instructions to download an app and the QR code, sending it to the user.
		- Edit the active user list that another script uses to offboard users from the system.

**Devon Energy Aug. 2017 - Jul. 2019**

*End User Support Analyst / Software Support Calgary, AB*

* In my role at Devon, I was responsible for administering [Jackfish Lodge](https://goo.gl/maps/McK9Zq878CbShGaGA)’s Building Access System including a network of 2,000+ IoT devices. As the tier 1/2/3/4 support analyst for Assa Abloy Visionline. My area of expertise included IoT, Windows Server 2012r2 Administration, electronics repair (smart thermostats, motion Sensors, door locks), and desktop support.
	+ Collaborated with the safety and training administrator to develop interactive training content for facility site operators. This provided the operators with procedure references that were more maintainable and substantially less dull than the stack of binders that it replaced.
	+ Planned, tested, and implemented a new IoT network topology that reduced the device connection failure rate by 50%. This gave me more free time for documentation, preventative maintenance, and collaboration on projects with other teams.

**Enbridge Dec. 2015 – Aug. 2017**

Enterprise Desktop Services Calgary. AB

*Team Lead Nov. 2016 – Aug. 2017*

* As team lead, my responsibilities were to lead projects, manage escalations, manage the ticket queue, train new-hires, and ensure that SLAs were met. Normal duties included IMAC, BES12 and Mobile Iron device management, OS deployment, AV repair, and executive support.
	+ Provided training, escalation support, and guidance to the team of 7 Desktop Support Analysts
	+ Planned, delegated workloads, and oversaw the execution of 3 office relocations, a printer fleet refresh, and the onboarding of new users following Enbridge’s acquisition of Spectra Energy.

*Desktop Support Analyst Dec. 2015 – Nov. 2016*

* As a member of the EDS team, I was responsible for imaging and deploying computers, configuring VOIP phones in CUCM, troubleshooting hardware and software issues, documenting and updating tickets in ServiceNow, and writing scripts in PowerShell.
	+ Supported 1300+ users, 400+ applications, at an average of 120 tickets per month

*Additional experience as* ***Field Service Technician*** *at* *ABM Integrated Solutions.*

**EDUCATION**

**Fanshawe College July, 2012**

*Diploma of Information Technology - Virtualization Specialty London, ON*

**OTHER SKILLS & INTERESTS**

**Home Server Environment**

* Cisco Meraki / Aruba Network
	+ Segregated VLAN networking
	+ Inbound / Outbound firewall rules
	+ 10 gigabit Fiberoptic SAN for iScsi traffic
* VMware vSphere High Availability Cluster
	+ 2 ESXi hosts with load balancing, HA, and failover rules set for failover recovery
	+ FreeNas server hosting 2TB of iScsi storage to VMs in the cluster over a 10g network, as well as redundant storage for my home network.
* Docker Environment (Soon to be Kubernetes)
	+ Apache Guacamole (HTML5 remote access gateway)
		- Provides RDP, SSH, and VNC connections to the various machines in my network over a secure 2FA protected HTTPS connection
	+ Gitlab CE
		- Provides a self-hosted version of Gitlab.com for version control, wiki pages, and docker container repositories
	+ Rundeck
		- A graphical front-end where I configure/run scripts and ansible playbooks
	+ Ansible
		- A configuration management engine that accepts configuration files called playbooks
	+ Nginx
		- A webserver and reverse proxy that I use to secure the connections to Guacamole and Gitlab with SSL
* Windows Active Directory Domain
	+ 2 domain controllers
	+ Provides DHCP, DNS, and LDAP authentication for other applications (vCenter, Guacamole, Gitlab, Rundeck, FreeNas).

**Other Projects**

* Web Development
	+ Many half-finished projects using:
		- HTML5
		- CSS3
		- JavaScript
			* Vue.JS
			* Axios.JS
		- Python (Flask)
* Python Projects Using:
	+ Flask
	+ Requests
	+ Pandas
	+ Beautiful Soup
	+ Selenium

**Things that aren’t IT Related**

* Cooking
* Dungeons and Dragons
* Camping
* Drinking Coffee
* PC Games