Andrew Burch

Professional Experience

Senior Security Engineer
Security Endpoint Engineering – Booz Allen Hamilton   DeWitt, MI (remote) | Nov 2022 – present

- Automate endpoint security (ENS) policy enhancements with Python and Selenium
- Conduct tier 3 root cause analysis (RCA) for all network and endpoint security incidents
- Deploy McAfee/Trellix products, antivirus (AV), and data loss prevention (DLP) policy to all endpoints and servers
- Maintain active Top Secret (TS) Department of Defense (DoD) security clearance
- Monitor web security gateways, perimeter and endpoint security, and other network access controls
- Pioneer data and security policy platform migration from F5 ACLs to Zscaler ZPA with Python automation
- Streamline Zscaler ZIA URL filtering policy with Python and API automation for the entire firm
- Update and troubleshoot Cisco AnyConnect Secure VPN connectivity for over 30,000 endpoints

Network Security Site Reliability Engineer
Data Networks Operations – Consumers Energy   Jackson, MI (hybrid) | Nov 2016 – Dec 2022

- Assist network engineering teams with provisioning new networks, VLAN tagging in Cisco ACI
- Design custom Bash, Expect/TCL, JavaScript, Python automation and monitoring scripts
- HSM keyholder experience, participation in disaster recovery tests and on-call rotation
- Maintain secure access control and credential vaults in Cisco ISE and CyberArk platforms
- Present risk assessments for platform system upgrades to change management approval board
- Schedule and perform quarterly Palo Alto firewall firmware upgrades at over 200 locations
- Serve as subject matter expert (SME) in varied security assets, standards, procedures and documentation
- Streamline Palo Alto firewalls, Juniper switches, F5/BIG-IPs and Ciena network operations support
- Troubleshoot network incidents and system performance issues for agile root cause analysis

Software Engineer Intern
Customer Energy Management – Consumers Energy   Kalamazoo, MI (hybrid) | Mar 2015 – Nov 2016

- Automate mass data analysis to improve business workflow productivity for over 200 employees
- Automate SAP user interface interaction with Visual Basic scripts and macros in Microsoft Excel
- Design web interfaces in HTML, CSS, JavaScript, and PHP to track gas/electric project timelines
- Engineer workload forecasting solutions to ensure business continuity and project deliverability

System and Lab Administrator
Office of Information Technology – Western Michigan University   Kalamazoo, MI | Sep 2013 – Sep 2016

- Deploy targeted policy changes to domain infrastructure via Active Directory and Group Policy
- Develop Visual Basic and Batch file scripts to automate silent task sequence deployments in MDT
- Maintain system integrity and availability of over 300 student workstations in 4 computer labs
- Provide technical support expertise to students and fulfill customer software requests
- Update Windows 7/8/10 system images and enterprise software licensing from over 50 vendors

Education

B.S. Computer Science, Minor: Mathematics
Western Michigan University   Kalamazoo, MI | 2012 – 2016

High School Diploma, GPA: 4.11
Grandville High School   Grandville, MI | 2008 – 2012

Security Clearance

Top Secret (TS), Active
Department of Defense   defense.gov | Feb 2024 – present

Skills

Programming – C, C#, CSS, HTML, Java, JavaScript, PHP, Prolog, Python, Ruby, VBA

Scripting – Bash, Batch, Expect/TCL, PowerShell, Visual Basic

APIs – AngularJS, Bukkit, BungeeCord, Google Maps, Ionic, jQuery, Microsoft Power Apps, Node.js, RESTful, Selenium, Socket.IO/Express, Spigot, Trellix ePO, Zscaler ZCC/ZDX/ZIA/ZPA

Databases – MongoDB, MySQL, NoSQL, PostgreSQL, SQLite

Webservers – Apache, Flask, Nginx

Operating Systems – Android, Arch Linux, CentOS, Fedora, iOS, Kali Linux, MacOS, Mint, openSUSE, Red Hat, Ubuntu, UNIX/Linux, Windows

Networking – Asuswrt-Merlin, Ciena, Check Point firewalls, Cisco ACI/AnyConnect/ISE, F5/BIG-IP load balancers, Juniper routers/switches, OSI, Palo Alto firewalls, pfSense, SD-WAN, VPNs

Security – DLP, Everfox, Hash/encryption algorithms, Hashcat, HSM keyholder, IDP/IPS, IPsec, Iptables/UFW, McAfee/Trellix, Metasploit, NERC CIP, Nmap, OpenVPN, SIEM, SNMP, Snort, SolarWinds, SSL/TLS, Tcpdump, WireGuard, Wireshark, X.509, Zscaler ZCC/ZDX/ZIA/ZPA

Software – Adobe, Gimp, Git, Jira, Microsoft Office, ServiceNow, Splunk

Projects

Personal Website – Jekyll blog/portfolio of education, projects, achievements and interests
andrewburch.me   andrewburch.me | 2020 – present

MongoDB Management Bot – Java app for automated maintenance of MongoDB replica set
Personal   andrewburch.me | 2018

DuoAuth Plugin – Adaptive and configurable RFC6238-compliant authentication with bcrypt
SpigotMC Forums   spigotmc.org | 2018

Firewall Version Map – Node.js app monitoring geolocation, PanOS software version and per-core dataplane utilization of Palo Alto firewalls via SNMP/XML API polling and D3.js graphing
Consumers Energy   Jackson, MI | 2017 – 2020

Hybrid-Mobile App – Cross-platform mobile app used to report streetlight/power outages
Western Michigan University   Kalamazoo, MI | 2016

Minecraft Server Network – Public Minecraft game server network developed with custom gamemodes via Java plugin development and 3-node geo-redundant replica set cluster for high-availability
Foncused Network   foncused.net | 2020 – present

Volunteer Experience

Student Mentor – Mentor student lacking parental guidance
Big Brothers Big Sisters of America   Jackson, MI | 2019 – 2022

Forums Moderator – Forum moderation overseeing 1.8 million members
SpigotMC Forums   spigotmc.org | 2017 – present

Honors

Leaving It Better Award (x2) – Recognized for advancing company strategy
Consumers Energy   Jackson, MI | 2017, 2022

Interests

Computer Programming, Web Development, Network Security, Cyber Security, Data Networking, Data Analysis, Data Structures, Data Privacy, Automation Efficiency, Artificial Intelligence, Machine Learning, Neural Networks, System Administration, Interconnected Technology, Software, Hardware, Mathematics, Number Theory, Cryptography, Steganography, Hash Algorithms, Cryptocurrency, Chess

References

- Jan Kerr – Booz Allen Hamilton (supervisor) | 703-581-7746 | kerr_janette@bah.com
- Chris Debenham – Consumers Energy (manager) | 517-788-1669 | chris.debenham@cmsenergy.com
- Stephen Flores – Consumers Energy (supervisor) | 517-416-1595 | stephen.flores@cmsenergy.com
- Allen Eichenberg – Consumers Energy (supervisor) | 517-750-8304 | allen.eichenberg@cmsenergy.com
- Christine Shook – Consumers Energy (supervisor) | 248-765-6999 | christine.shook@cmsenergy.com
- Luther Bonner – Consumers Energy (manager) | 734-755-8164 | luther.bonner@cmsenergy.com
- Chris Rohde – Consumers Energy (supervisor) | 989-791-5776 | christopher.d.rohde@cmsenergy.com
- Tyler Payne – Western Michigan University (supervisor) | 269-387-4354 | tyler.payne@wmich.edu
- Doug Hepfer – Hepfer & Associates (robotics coach) | 616-540-3239 | dhepfer@hepferassociates.com
- Mike Evele – Grandville High School (teacher) | 616-916-0300 | mevele@gpsk12.net

Contact

Email: drew@andrewburch.me
Website: andrewburch.me/contact
LinkedIn: linkedin.com/andrew-burch-me