

# Onurhan Ak

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## Summary

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RHCSA-certified SysAdmin specializing in provisioning and automating Linux environments for data science and ML workflows. Used Ansible and Docker Compose for reproducible single-server deployments. Built custom tools in Python, Go, and Bash for ETL and automation.

## Key Skills

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**Operating Systems:** Red Hat Enterprise Linux (RHEL), CentOS, Ubuntu.

**Scripting:** Python, Golang, Bash.

**Configuration & Automation:** Docker, Ansible, CI/CD, Github Actions.

**Security & Networking:** SELinux, firewalld, SSH, NFS, DNS.

**Project Management & Collaboration:** Jira.

## Certifications

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**AWS**, Certified Solutions Architect

June 2025

**Red Hat**, Red Hat Certified System Administrator (RHCSA)

Apr 2025

## Professional Experience

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**Linux System Administrator & Data Engineer.** University of British Columbia — Remote | Nov 2022 - Present.

- Independently supported a research team of 5–10 users running scientific Python workflows on HPC and Linux systems.
- Provisioned and maintained reproducible development environments using Apptainer, Docker, and Ansible.
- Standardized provisioning with Ansible and Docker Compose, reducing setup time by 90% and enabling rapid re-deployment.
- Managed Python virtual environments and userspace on SLURM clusters to ensure consistent dependencies and job execution.
- Developed Python and Go utilities for ETL tasks and data ingestion, reducing manual scripting and accelerating onboarding.
- Automated backups of research data and environment configurations with custom scripts in Python and Go.
- Provided SSH support and Linux troubleshooting to non-technical researchers.

**Linux System Administrator & Python Developer.** Freelance — Remote | Dec 2021 - Present.

- Deployed and maintained Linux servers for small businesses (e.g. German Education Partners, Onlinin) and research labs (e.g. at UBC Sauder School of Business), including user/group management, system updates, and firewall configuration.

- Debugged and refactored inefficient or broken Python/Bash scripts submitted by clients (e.g. UAB Decentralized (CoinGate)).
- Automated routine maintenance tasks (backups, package updates, user management) with Bash scripts, eliminating manual intervention and standardizing processes.
- Documented infrastructure configurations, enabling clients to manage and extend their environments independently.
- Provided SSH support and Linux usage training to non-technical users.
- Created custom Python applications for data processing, automation, and analysis (e.g., notification systems connected to data pipelines).
- Designed and implemented data pipelines for efficient ingestion, transformation, and reporting, including pipelines interacting with undocumented APIs.

## Selected Projects

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### Homelab Automation with Ansible and Terraform

- Provisions a dedicated homelab server with Ansible.
- Configures VNC server, NFS exports, and firewall rules with Ansible playbooks.
- Uses Terraform to deploy and manage Docker containers.

### Personal Website

- Available at: <https://onurhanak.com>
- Containerized the application with Docker and deployed to AWS EC2 using Terraform and Ansible.
- Configured Nginx as a reverse proxy with HTTPS via Let's Encrypt (Certbot) and automated certificate renewal.
- Hardened the server with UFW, SSH key-based access, and minimal open ports.

## Education

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<b>PhD</b>	<b>Queen's University</b> , Sociology	Jan 2025
<b>MS</b>	<b>METU</b> , Sociology	Jun 2019
<b>BS</b>	<b>METU</b> , Sociology	Jun 2017