

# Onurhan Ak

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## Summary

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RHCSA-certified SysAdmin who streamlined provisioning and automation of Linux environments for data-science and ML workflows. Leveraged Ansible and Docker Compose to deliver reproducible single-server deployments, and built custom Python, Golang, and Bash tools for ETL and system 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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**Red Hat**, Red Hat Certified System Administrator (RHCSA)

Apr 2025

**AWS**, Certified Solutions Architect

In-progress

## Professional Experience

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

- Managed Linux-based environments for data processing and AI workloads on HPC systems.
- Streamlined provisioning of Linux dev environments with Ansible and Docker Compose, reducing provisioning times 90%.
- Managed research team's Python virtual environments and userspace on a SLURM cluster, ensuring consistent dependencies and job execution.
- Engineered Python and Golang automation tools for ETL and data-ingestion pipelines, reducing manual scripting effort and accelerating onboarding of new datasets.
- Automated backups of research directories and environment configurations with custom Golang and Python scripts.

**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

- Provisions a dedicated homelab server with one Ansible playbook.
- Deploys Pi-hole and Jellyfin via Docker.
- Sets up headless GUI access with XFCE and a VNC server.
- Configures NFS exports for multiple directories.
- Configures firewalld rules to expose VNC and NFS.

### Personal Website

- Available at: <https://onurhanak.com>
- Containerized the application with Docker and deployed to AWS EC2.
- Configured Nginx as a reverse proxy with HTTPS via Let's Encrypt (Certbot) and automated certificate renewal.
- Set up continuous deployment using GitHub Actions to build and redeploy the container on every push to main.
- 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