

SCIENTIFIC SYSTEMS ADMINISTRATOR

The Vector Institute is seeking a **Scientific Systems Administrator** to join our growing team in Toronto. The incumbent in this role will participate in the building and future maintenance of a High-Performance Computing environment for world class research in Machine Learning. This role will primarily support researchers and their scientific computing needs such as library support, compiling, hardware and software installation etc. The Systems Administrator will also build and maintain tools that facilitate the automated or direct administration of network and computing infrastructure, including switches, firewall, network security, printing, servers and workstations, backups, cloud computing, virtualization, and scripting. The position is expected to have a hands-on, problem-solving approach to managing and troubleshooting environments.

Employment type: Regular, full-time

SELECT KEY RESPONSIBILITIES

- Support advanced Linux-based scientific workstations, servers, and storage for research computing;
- Develop and maintain solutions for automatic installation and configuration of operating systems;
- Assemble and/or install new parts in servers and workstations;
- Perform hardware and software system upgrades and maintenance;
- Troubleshoot and repair hardware and software installation;
- Install new scientific software, libraries, on servers, workstations, or laptops, in a variety of operating systems (Linux, Mac OS, Windows);
- Support researchers in all their computing needs;
- Maintain network infrastructure and assist users: network connections (wired or wi-fi), switches, firewall devices, DNS, routing, security;
- Build and maintain specialized servers (e.g. NFS, Apache, slurm, cluster fs);
- Administration of user accounts, home directories, backup and restore, LDAP;
- Maintain system security: firewall, IPS, system logs;
- General enterprise IT operations.

REQUIRED SKILLS AND/OR EXPERIENCE

- Degree in computer science or engineering or more than 5 years systems administration in a UNIX/Linux high-performance computing environment or complex computing environment;
- More than 3 years of proven, hands-on experience: Linux/UNIX systems administration preferably in a research environment (VPN, DNS, DHCP, NFS, ZFS, LDAP, KERBEROS, SLURM);
- Proven programming/scripting skills (python, shell, perl, etc.) as it pertains to systems administration;
- Managing and troubleshooting environments using mostly open-source software.

DESIRED SKILLS AND/OR EXPERIENCE

- Cloud computing (AWS, MS Azure, Google) and virtualization (Docker);
- Installation and maintenance of GPUs and other special devices in servers and workstations in Linux environments;
- Ability to communicate with researchers to develop and troubleshoot computing environments that will optimally help their research.

GENERAL SKILLS

- Excellent verbal and written English communication skills, including ability to communicate effectively with researchers;
- Demonstrated ability to prioritize tasks and resolve problems in a timely manner;
- Ability to work autonomously, multi-task and work in a fast-paced and stressful environment;
- Be proactive, addressing potential problems before they occur;
- Be data-driven: collect and analyze data to support decision making;
- Desire to learn and take on new responsibilities;
- Strong attention to detail;
- Problem-solving outlook.

THE VECTOR INSTITUTE

Vector will be a leader in the transformative field of artificial intelligence, excelling in machine and deep learning — an area of scientific, academic, and commercial endeavour that will shape our world over the next generation. We are building on Canada’s outstanding pool of globally recognized AI expertise by training, attracting and retaining more top researchers who want to lead the world in machine learning and deep learning research, while having the flexibility to work on commercial applications with companies or in their own startups.

INTERESTED?

Please submit a resume and cover letter describing your skills and experience in the areas described above to David Wexler, Vector Institute at david.wexler@vectorinstitute.ai.

We thank all applicants for considering this opportunity and will be in touch with those whose qualifications most closely match with the specific qualities being sought for this role.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority. The Vector Institute encourages applications from all qualified individuals, including women, members of visible minorities, indigenous peoples and persons with disabilities