EMPLOYMENT OPPORTUNITY   Be a part of something BIG.

Linux System Administrator
JOB OPENING ID 329386

IPUMS (www.ipums.org), housed at the Institute for Social Research and Data Innovation (ISRDI - isrdi.umn.edu), is the largest disseminator of census and demographic data to the world's academic research community. The staff of ISRDI's IT team support this mission by leveraging leading open source tools, such as Docker, Apache Spark, Ubuntu Linux, Apache httpd, PostgreSQL and Ruby on Rails, to solve big data challenges and build reliable, scalable web-based data dissemination systems. These systems provide access to 1.4 billion records spanning 230 years and more than 100 countries for users around the globe.

This position is a Linux systems administrator on the ISRDI IT's Operations team. This team manages the infrastructure that ISRDI uses to create, test, deploy, run and monitor our custom-developed software systems for processing and disseminating our research datasets. The ideal candidate will have strong traditional Linux system administrator foundational skills along with a particular interest in clustered/distributed computing and containerized infrastructure. You will work across our project portfolio, offering the opportunity to have a major impact on many products and teams across our organization.

ISRDI IT is a collegial environment which favors close collaboration with each other and with our research staff as we develop software in an agile, iterative manner. We provide strong support for continuing education and professional development. We strive to offer a flexible work environment, and one of our core values is an emphasis on a healthy work-life balance. The University's benefits package is robust and competitive.

RESPONSIBILITIES

The IT Operations Team's primary goal is to provide state-of-the-art environments and support for our data research and software development mission. The work involves daily interaction with the rest of IT, the research staff, affiliate faculty and student members, and other user communities. As such, you will interact with stakeholders throughout the organization. You will be responsible for:
- daily monitoring and administration of our linux infrastructure and related components
- assisting our developers and research staff in designing and implementing new systems or improvements to existing systems
- troubleshooting abnormal system behavior and failures
- participating in the tuning of systems for performance and scalability improvements
- development of automated solutions for setting up development and production environments
- assisting with general IT operations team tasks as needed

In this wide-ranging role, you will have the potential to work on challenges as diverse as automated scale-up/scale-down of infrastructure, caching layers, build-out of continuous integration / continuous deployment environments, improvement of API call performance, and management of our data processing pipelines using HPC approaches and technologies such as Apache Spark.

WORK BREAKDOWN

- **20% Systems Architecture and Design.** In collaboration with the rest of the operations team, our software developers, and our infrastructure providers, design systems to support our development, testing, and production infrastructure needs, including distributed and parallelized systems.
- **70% Systems Implementation and Maintenance.** Deploy and maintain our development, testing, and production research systems and environments utilizing physical, virtual and cloud infrastructure.
- **10% Other duties as assigned.**

The anticipated starting salary for this position is $72,000 - $84,000 depending on qualifications and experience.

QUALIFICATIONS

A bachelor's degree in a field related to the position and two years of work experience in the areas of database design and administration.

Experience and skills must include:
- Proficiency managing and monitoring Linux servers
- Proficiency managing web (e.g. Apache httpd) and database (e.g. PostgreSQL) servers
- Proficiency with a scripting language such as Python, Perl or Ruby
- Proficiency with containerization technology such as Docker
- Ability to effectively plan work and manage complex tasks/projects
- Very strong communication abilities (oral and written)

Additional selection criteria include: Benchmarking, performance analysis, profiling and optimization of Linux servers and custom applications. Working in virtualized or cloud environments. Technologies with Spark-based platforms and other high performance computing tools. Supporting Ruby on Rails web applications. Caching tools (e.g. redis, memcached). Configuration management tools such as Ansible. Experience with container orchestration tools such as Kubernetes.

APPLICATION PROCEDURE

Please apply using the University of Minnesota's online employment system humanresources.umn.edu/jobs and search job opening ID 329386 or use this short url: https://z.umn.edu/sysadmin2019. Application requirements include a resume, and a cover letter describing your interest and qualifications in the position. Questions concerning the application process may be addressed to Mia Riza, HR Generalist, at isrdi-jobs@umn.edu.

Any offer of employment is contingent upon the successful completion of a background check. Our presumption is that prospective employees are eligible to work here. Criminal convictions do not automatically disqualify finalists from employment.