Software Developer
JOB OPENING ID 334356

JOB DESCRIPTION
IPUMS ([https://www.ipums.org/](https://www.ipums.org/)) is a leader in the field of quantitative social science research and the largest disseminator of census and demographic data to the world’s academic research community. Or, to put it another way - we’re on a mission to gather, process, link and publish billions of records spanning hundreds of years and more than 100 countries so that demographers, historians, economists, environmental scientists, journalists, policymakers, and others around the globe can use the data to do amazing research and make the world a better place.

The IPUMS IT group supports this mission by using leading open source tools to solve complex data and computation challenges and build reliable, scalable data dissemination systems. Your work will be highly visible and will contribute directly to the overall success of our organization. IPUMS is part of the University’s Institute for Social Research and Data Innovation (http://isrdi.umn.edu) and is closely connected to work at the Minnesota Population Center.

IPUMS and its affiliated units support the work-life balance of our staff with 40-hour work weeks, flexible work hours, and generous vacation and sick leave benefits. The University also offers excellent health insurance, tuition assistance, and retirement benefits. IPUMS IT has a robust professional development fund for staff training and development.

Diversity and inclusion is a core value of our organization. We aspire to create an IT team that represents the diversity of our city, our region, and our world, and to create a space that encourages and embraces inclusiveness, equal opportunity, and respect. We strongly encourage women and members of under-represented groups to apply.

About This Role
This position is for a software developer to work on cross-product services and back end integrations. The initiatives worked on will be focused on integrating our portfolio of software systems and data dissemination websites and bringing new cross-product services into production. Additionally, this role will work on initiatives to produce better analytics about our users and their usage of our products.

The two primary technologies this role will use are Python and Ruby on Rails. We encourage applicants with experience in either of these technologies to apply, even if they have not worked with both. Other technologies this position will work with include Postgres, MySQL, RabbitMQ, Elasticsearch, and Docker.

This position will have an annual starting salary of $80,000+, commensurate with experience.

RESPONSIBILITIES
The position functions as a member of the data dissemination team and will have responsibility for design, implementation and support of software systems, including enhancing and adding new features to the IPUMS web applications and APIs as well as building standalone software systems. This position will report to the lead developer of the team. This position involves daily
interaction with the rest of ISRDI IT, the ISRDI research staff, and other user communities.

**Work Breakdown**

*50% Software Implementation and Analysis.* Coding, refactoring, testing and deployment in both individual and team settings.

*20% Software Architecture and Design.* Iterative development of architecture and design in partnership with IT and research staff.

*25% Deployment and Support.* Support of production systems as necessary.

*5% Other job duties as assigned.* Professional development activities, participation in IT working groups, and other tasks as assigned.

**QUALIFICATIONS**

**Required:**
Bachelor’s degree. Two years of work experience in application/web/systems development with a related bachelor’s degree or four years of work experience in application/web/systems development with a non-related bachelor’s degree.

Required experience includes:
- Python or Ruby on Rails
- Databases (relational or NoSQL)

Effective oral and written communication skills are essential. This position requires the ability to work independently on complex projects as well as the ability to effectively collaborate with your colleagues.

**Preferred:**
Experience with one or more of the following:
- API design and implementation
- Containerization technologies such as Docker
- Service (or microservice) based architectures
- Developing applications in a Linux environment
- Working with and transforming large amounts of data
- Application server technologies such as NGINX and Passenger
- Message queues such as RabbitMQ and Kafka
- Elasticsearch
- Data Analytics and B.I. experience

Proficiency in additional programming languages such as Java or C/C++. An active github.com or similar code-sharing account (please share details in your resume or cover letter). Experience with parallel/distributed computations. Experience with Test-Driven Development, Continuous Integration and other Agile software development concepts.

**APPLICATION PROCEDURE**
Please apply using the University of Minnesota’s online employment system humanresources.umn.edu/content/find-job and search job opening ID 334356 or go directly to jobsearch.cla.umn.edu/334356. 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 & Operations Manager, 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.