The Institute for Health Metrics and Evaluation (IHME) is a dynamic organization at the University of Washington. Its mission is to monitor global health conditions and health systems, as well as to evaluate interventions, initiatives, and reforms. IHME aims to expand the quantitative evidence base for decisions in health, empowering policymakers, donors, and researchers with the highest-quality information to best make resource decisions. We provide high-caliber and timely scientific and policy-relevant results derived by applying cutting-edge analysis to all available data.

We expand the evidence base through endeavors like the Global Burden of Diseases, Injuries, and Risk Factors enterprise (GBD). A systematic, scientific effort to quantify the comparative magnitude of health loss due to diseases, injuries, and risk factors by age, sex, and geography over time, the GBD is the largest and most comprehensive effort to date to measure epidemiological levels and trends worldwide. In another area, our Geospatial Analysis portfolio, we work to provide health-related indicators at the most granular level possible – 5 km by 5 km estimates of the prevalence of diseases, risk factors, and related social determinants around the globe.

IHME has an outstanding opportunity for a Data Analyst on the central computation team. At the core of both the GBD and Geospatial Analysis is the need to take innovative analytic methods and devise ways to carry them out more easily and routinely. By creating and applying novel coding and computational solutions, the Data Analyst helps resolve thorny challenges to enable the timely and efficient production of high-caliber scientific and policy-relevant results. The solutions developed must allow databases, analytic engines, and creative data visualizations to function seamlessly with one another. The Data Analyst must develop a working understanding of the different analytic approaches to quantifying health and understand the analytic underpinnings of the methods being used.

This position must develop an understanding of different research needs and analytic functions across multiple teams to best meet researcher needs. The Data Analyst must be able to translate requests into actionable results and engage directly in problem-solving, implementing quality testing, and designing diagnostics. He/she must understand and be able to provide initial assessment of the results as part of the analytic process. The position calls for dexterity working with complex databases and the ability to assess, transform, and utilize quantitative data using multiple coding languages (Stata, Python, R, SQL). This position is contingent on project funding availability.

**Responsibilities:**

**Research command**

- Become familiar with substantive areas of expertise to understand the dimensions and uses of health data and the analytic underpinnings of different research streams, including the Global Burden of Diseases, Injuries, and Risk Factors enterprise and IHME’s Geospatial Analysis portfolio.
- Specialize in understanding how different components of the computational pipeline link with the production of desired quantitative results and how these components can be designed and implemented most efficiently while still maintaining high-caliber scientific quality.
- Understand key elements of the methodological approaches and how to creatively produce new results from existing indicators.

**Pipeline creation and execution**
- Solve computational and analytic problems creatively to efficiently produce timely and high-caliber scientific and policy-relevant results.
- As member of central computation team, innovate and streamline methods for transforming and working with complex datasets, applying and optimizing analytic methods, and creating central resources for researchers.
- Solve problems that allow for valuable comparisons between highly different quantitative datasets.
- Create and maintain central computational machinery that powers results across multiple projects.
- Create, maintain, and execute analytic tools that apply complex and cutting-edge quantitative methods to produce results that are central to both the GBD and IHME’s Geospatial Analysis portfolio. Develop creative code solutions to test and assess new methods.
- Assess desired results against available data and methods to provide solutions to design and implement a viable computational pipeline for multiple large-scale, multidisciplinary analytic projects.
- Maintain, update, and interact with databases containing health data and results from multiple sources.
- Devise creative diagnostics to better understand data, results, and the performance of key tools, and regularly perform quality assurance.
- Innovate and streamline ways to bring together data, analytic engines, and data visualizations in one seamless computational process. Solve problems that allow for valuable comparisons between highly different quantitative data sets.
- Develop code functions that can be used by a diverse range of individuals to solve commonly encountered problems and implement widely used analyses.
- Develop, maintain, and document code in multiple languages as needed to execute complex analyses and store results efficiently.
- Work directly with researchers to identify core computational needs, resolve analytic challenges, and create diagnostic tools.

**Publications, presentations, and data requests**

- Populate text and create tables, figures, and charts for presentations and publications.
- Provide referencing and other support for publications and presentations.
- Create new ways to view the data and illuminate stories in the results.
- Execute queries on databases to respond to the needs of senior researchers and external requests from collaborators, media, policymakers, donors, and other stakeholders.

**General**

- Communicate clearly and effectively while contributing as a productive member of the central computation team and the Institute as a whole. Work closely with other team members at varying levels to help them with relevant tasks, teach them new skills, and help resolve emerging problems on different projects.
- Attend relevant meetings, adhere to deadlines, and participate as a vital member to collectively advance team-level objectives.
Participate in the overall community of the Institute, carrying out duties as required as team members with other Institute members.

Minimum qualifications:

Bachelor’s degree in social sciences, sciences, mathematics, engineering, or related field plus two years’ related experience, or equivalent combination of education and experience.

- Demonstrated success in developing code in R, Python, Stata, SQL, or other coding language.
- Demonstrated facility with analytic tasks and ability to participate productively in interdisciplinary research teams.
- Strong quantitative aptitude, desire to learn new skills and information, and ability to interpret complex analytic quantitative information.
- Strong sense of focus and attention to detail.
- Interest in global health research.
- Demonstrated organizational skills, self-motivation, flexibility, strong communication skills, and the ability to thrive in a fast-paced, energetic, highly creative, entrepreneurial environment.
- Experience writing novel code to handle complex analytic tasks optimal.
- Experience with using, building, or maintaining databases of quantitative information optimal.

Work Conditions: Weekend and evening work may be required.

Further Information: See IHME’s website: www.healthdata.org

To Apply: Please apply through the UW Hires Website and enter Req 128560