The Institute for Health Metrics and Evaluation (IHME) is an independent research center at the University of Washington focused on expanding the quantitative evidence base for health. IHME aims to provide policymakers, donors, and researchers with the highest-quality quantitative data to make decisions that achieve better health. IHME’s research spans multiple disciplines and policy-relevant areas including resource tracking, cost-effectiveness, forecasting, burden of diseases, geospatial analysis, health systems solutions, and impact evaluations. It has established international scientific credibility for developing innovative multidisciplinary methods and producing cutting-edge results. IHME aims to be nimble and entrepreneurial in its work, taking on daunting analytic challenges in order to provide critical information that can help answer big-picture questions at the most local level possible, such as:

- What is the state of the world’s health?
- What impact are different programs, initiatives, and policies having on improving health?
- What investments and decisions can we make today that will improve health most in the future?

IHME accomplishes these aims by working with a wide range of collaborators across the world. Currently, we are engaged with over 1,900 collaborators from more than 125 countries and have undertaken on-the-ground data collection in over 20 countries. Through groundbreaking scientific findings, innovative data visualizations, and policy reports and outreach we have disseminated results around the world and engaged myriad audiences.

**IHME is hiring for multiple Data Analyst positions on a number of different teams.** We review and interview applicants on a rolling cycle. All applications received by January 16th will be included in this round of reviews. Those received after January 16th will be reviewed in the February round. Interviews for this round will be scheduled on January 31st, February 1st and 2nd. Placement onto a team is determined by specific needs of the team and candidates’ qualifications.

The main purpose of these positions is to provide support to key research projects through database management, data quality management, computational support to multi-disciplinary research projects, data extraction and formatting, and providing key inputs for papers and presentations. Data Analysts must develop an understanding of different research needs and analytic functions across multiple projects to best meet researcher needs. Data Analysts must be able to independently translate requests into actionable results through interactions with research databases, formulation of displays of results, and development of complex code to be applied to a variety of quantitative data.

These positions call for dexterity working with complex databases and the ability to assess, transform, and utilize quantitative data using multiple coding languages (Stata, Python, R, SQL). The individual must then quality control results to ensure that other team members have exactly what they need to incorporate the data and results into their own components of the analytic process, presentations, and papers. Overall, the Data Analyst will be a critical member of an agile, dynamic research team. This position is contingent on project funding availability.

Research Teams for which Data Analyst positions are currently available include:

*Global Burden of Diseases, Injuries, and Risk Factors enterprise (GBD)*: A core research area for IHME is 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. The GBD’s aim is to provide policymakers, donors, and researchers with the highest-quality quantitative evidence base to make decisions that achieve better health.

Geospatial Analysis: IHME is seeking to revolutionize the way we track diseases around the world by developing innovative geospatial analytic methods to produce increasingly granular estimates of diseases and determinants. Just a few of the diseases this revolutionary work will touch on are pneumonia and its etiologies, diarrhea and its pathogens, malaria, HIV/AIDS, tuberculosis, Ebola, as well as select neglected tropical diseases. Through the development and use of geospatial techniques to synthesize information at the local level, and in partnership with key collaborators around the world, IHME will present results in interactive high-resolution maps to illuminate levels, trends, and disparities in health outcomes.

Central Computation: 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.

Resource Tracking: The Financial Resources for Health (FRH) research team is a longstanding core research team at IHME whose focus is to systematically, scientifically track resources spent on health and measure their impact. This research covers both domestic and international financing and uses a wide variety of data and statistical processes. To create health spending and impact estimates, this position collects, cleans, and manages a diverse set of quantitative data including household surveys, global databases, censuses, literature, and administrative records. Relevant data include a range of topics: health financing, epidemiology, demography, health systems, and health outcome determinants and risk factors such as education, income, and air pollution.

Forecasting and Cost Effectiveness: This research area is to help policymakers, donors, ministries of health and public health workers to effectively apply and scale up interventions by empowering them to review and compare the relative costs, efficacy, and impact of potential interventions and the modulation of different factors to the health system. By empowering these stakeholders with the best possible understanding of both what the future might look like based upon current assumptions and allowing them to compare different scenarios over time we equip them to better understand the tradeoffs inherent in different resource allocation decisions today and into the future.

Typical responsibilities include:

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, Geospatial Analysis portfolio, Central Computation and Resource Tracking.
• Work directly with researchers to trace back the source of data used in models and results, understand the context of the data, and ensure that they are relevant to the analyses themselves.
• Work directly with researchers to explain and modify databases and routine analytic processes to best serve the needs of evolving projects.
• Create and document efficient, effective and replicable methods to extracting data, writing and applying code as relevant, organizing data sources, managing data quality, and explaining complex analytic processes.
• 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.

Data management and analytic processes
• Problem-solve computational and analytic challenges by investigating the data, understanding the root questions, and coming up with alternative measurement strategies.
• Innovate and streamline methods for transforming and working with complex datasets, applying and optimizing analytic methods, and creating central resources for researchers.
• Maintain, update, and interact with databases containing health data from multiple sources.
• Perform quality assurance and routine diagnostics on data and databases.
• Develop, document, and maintain code in multiple languages as needed to clean, merge, aggregate, manipulate, and format datasets.
• 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.
• Extract, format, and transform data from multiple sources according to set protocols in consultation with researchers to best meet their needs. Sources include literature, surveys, censuses, administrative records, vital registration systems, and disease registries, among others.
• 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.
• Archive, catalog, and annotate datasets according to Institute standards to build a common library of materials for use by a wide set of researchers.

Publications, presentations, and data requests
• Create text, 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.
- Assess available results and determine how best to marshal and sometimes modify them to address requests that do not strictly match to available data.

**General**

- Communicate clearly and effectively while contributing as a productive member of assigned team and the Institute as a whole. Work closely with other team members to help them with relevant tasks, show them how to learn 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.
- Work with data visualization developers, data indexers, and other staff as needed to support the needs of the project.
- Participate in overall community of the Institute, carrying out duties as required as team members with other Institute members.
- Participate in and/or lead internal trainings to share knowledge and ensure consistency across the Institute.

**Minimum qualifications:**

Bachelor’s degree in social sciences, sciences, mathematics/statistics, engineering, computer science 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.

**Conditions of employment:** Evening and weekend work may be required.

**Further Information:** See IHME’s website: [www.healthdata.org](http://www.healthdata.org)

**To Apply:** Please apply through the [UW Hires Website](http://www.healthdata.org) and enter Req 140193.
University of Washington is an affirmative action and equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, gender expression, national origin, age, protected veteran or disabled status, or genetic information.