



Position Description

Research Fellow - Data Scientist/Quantitative Researcher

Institute for Economics and Peace

The Institute for Economics and Peace (IEP) is a non-profit research organisation dedicated to shifting the world's focus to peace as a positive, achievable, and tangible measure of human well-being and progress. Rated in 2014 and 2015 as one of the world's most impactful think tanks with a budget under \$5 million and a think tank to watch by the University of Pennsylvania's Global Go To Think Tank Index, the Institute is looking to expand its research team.

IEP achieves its goals by developing new conceptual frameworks to define peacefulness; providing metrics for measurement; uncovering the relationship between peace, business and prosperity, and by promoting a better understanding of the cultural, economic and political factors that drive peacefulness. The research outputs of the Institute have been featured in leading media internationally, from the New York Times, the Guardian, FoxNews, the Economist, Huffington Post, Washington Post, CNN, and BBC and are widely cited by intergovernmental organisations and in academia.

Current and previous partners and consulting clients include numerous leading organisations internationally including the United Nations Development Programme, the Organisation for Economic Co-operation and Development (OECD), Economist Intelligence Unit, Center for Strategic and International Studies (CSIS) the Earth Institute at Columbia University, the Club de Madrid, and the Commonwealth Secretariat. The Institute is a non-partisan and not-for-profit organisation with offices in Sydney, Mexico City and New York. The data scientist would join a research team composed of eight other dedicated research staff.

This exciting opportunity is for an **entry level or early career data scientist** offering the successful candidate hands-on experience to practically apply data science to research in better measuring and understanding the cause of peace and conflict throughout the world. It is an ideal position for recent graduates in a computer or data science related degree.

Research fellow – Data scientist role

The Research Fellow will have a track record of database administration, programming and applied quantitative research in an academic, entrepreneurial or commercial capacity. S/he will be able to offer technical support such as data formatting, storage design and implementation, and automated process scripts for a team of researchers. S/he will also be able to conduct data analysis to contribute to the team's

new and ground-breaking thinking on frameworks for creating more peaceful societies. S/he will have project experience, an ability to work both independently and within a team.

The role will involve updating existing databases and designing new databases to support tasks for IEP's growing research team. Additional projects will be offered dependant on the skills and interests of the applicant.

The Research Fellow will contribute research on a wide range of topics related to the Global Peace Index, economics, development studies and peace and conflict studies. Ideal candidates will have recently completed a degree in IT, computer science or software engineering. Additional or double degrees would be advantageous. They will also have a deep interest in peace and development issues, be open-minded to multidisciplinary approaches in the social sciences and be well-travelled.

Required Skills and Background

1. Recently completed a degree in IT, computer science or software engineering.
2. Will be able to use Excel for basic statistical analysis
3. Will be able to design and manage SQL databases.
4. Proficiency in at least one high level programming language (R, Python, etc).
5. Knowledge of good software development practices (documentation, version control etc)
6. Excellent verbal and written communication skills, be able to undertake assignments with minimal supervision and effectively work in teams.
7. Experience conducting empirical research and quantitative data analysis in an academic or commercial capacity.

Desirable Skills and Experience

1. Knowledge and practical experience of R.
2. Experience of statistical packages such as SPSS, STATA, MATLAB, etc.
3. Experience in building dashboards in Excel, Tableau, etc.
4. Experience in handling "big data".
5. Experience in cloud computing/data management (Amazon RDS, AWS, etc).
6. Experience with version control online tools (Github, Subversion, etc).
7. Web design experience (HTML/PHP). Data visualisation experience is highly desirable (D3, Tableau, etc).
8. Experience in conducting applied quantitative research methods in an academic, commercial or entrepreneurial capacity.
9. Good knowledge of open source tools for software/web site development.
10. Additional studies/degrees in economics, mathematics, statistics, business or humanities would be highly advantageous.
11. Experience working with or knowledge of governmental and non-governmental organisations (NGOs) on peace economics, peace and conflict studies, and international development issues an advantage.

Desired personal qualities

- Excellent attention to detail and fast learner.

- Ability to meet multiple deadlines in a fast-paced work environment.
- Ability to work well under pressure with discretion and judgment.
- Deeply committed and interested in peace research.

Duties and Responsibilities

- Collect, assemble, and maintain datasets for quantitative peace and conflict research within software packages such as R and Microsoft Excel. Collect and analyse information from a wide variety of sources; monitor relevant material from conferences and seminars, government and intergovernmental documents, academic journals, institutional databases, relevant civil society organisations and NGOs.
- Contribute to IEP research reports, briefing memos, summaries of journal articles, books, blogs and news articles. Visualise data in interesting and efficient ways.
- Contribute to conceptual research on how to measure and quantify the factors that create more peaceful societies and the economic benefits of peace.
- Work on a broad range of quantitative oriented consulting work and other leading inter-governmental organisations related to development studies, peace and conflict and economics.
- Analyse data to develop new conceptual frameworks to generate evidence that can influence policy.
- Attend international conferences and seminars as required.
- Specific research projects will be on a diverse range of topics, for example including; Understanding the macroeconomic consequences of conflict and peace; developing models of fragility and resilience, identifying causal factors of peace; case study generation on positive business practices to facilitate peace; investigating principles of index design; generating new methods of measuring direct violence; using systems approach to understanding peace, investigating measures of social cohesion and how they relate to violence.

Location: The IEP headquarters is based in St. Leonards, Sydney.

Hours: This is a full time position.

Remuneration: Total remuneration package commensurate with experience.

Applications to: CV and cover letter addressing the selection criteria and desired personal qualities to Lucie Paleckova on jobs@economicsandpeace.org

Deadline for applications: 17 June, 2016

Website: www.economicsandpeace.org, www.visionofhumanity.org