Position Description
Research Fellow - Systems Scientist/Data Scientist

The Institute for Economics & Peace (IEP) is an exciting non-profit global 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 as one of the world’s most impactful think tanks by size, its work is used and widely cited by many of the leading international organisations in the world, including the UN, OECD and World Bank. The Institute also has a global consulting practice, performing work for many of the leading multi-lateral organisations and government departments.

IEP’s main products - the Global Peace Index and Global Terrorism Index - receive billions of media impressions per year and are considered global references in their field. The Institute’s core research products are used in thousands of university courses and with partners conducting training in countries such as Zimbabwe, Tunisia, Mexico and Uganda. The Institute’s research is regularly featured in leading international media publications including the Guardian, the Economist, Huffington Post, Washington Post, CNN, and BBC.

Other prominent organisations that the Institute partners with include the Economist Intelligence Unit, the Center for Strategic and International Studies (CSIS), Rotary International, International Chamber of Commerce, the Club de Madrid, the World Tourism and Travel Council (WTTC) and the Commonwealth Secretariat.

This exciting opportunity offers the successful candidate hands-on experience to apply data science to research on measuring and understanding the causes of peace and conflict throughout the world.

About the Role
The role consists of the application of data science to systems theory to better understand how societies operate, including issues of peace and conflict. Specifically, the applicant will be employed to apply systems theory and dynamic models to better understand how societies evolve. Research projects pursued depending on strategic considerations and where the quickest discoveries may be. Possible projects span a diverse range of topics including; developing models of societal fragility and resilience, identifying systemic factors of peace; using systems approach to understand encoded norms, feedback loops and attractors, investigating measures of social cohesion and how they relate to social change.

About You
You will have a track record of programming and applied quantitative research in an entrepreneurial or commercial capacity. Strong data science skills are assumed and experience in “systems thinking” or “dynamic systems modelling” will be a bonus. You will have the ability to work both independently and within a team, good communication skills and the ability to relate collaboratively and respectfully to colleagues. Experience in Project Management will be advantageous.

You will contribute research on a wide range of topics related to the Global Peace Index, economics, development studies and peace and conflict studies. You will have completed a degree in IT, computer science, software engineering, data science, mathematics or statistics with additional or double degrees being highly regarded. You will also have a deep interest in peace and development issues, be open-minded to multidisciplinary approaches in the social science.

**Duties and Responsibilities**

- Building data science models to understand drivers of societies.
- Undertaking research to generate evidence that influences policy.
- Build predictive quantitative models/simulations.
- Database management and administration.
- Writing quality reproducible code in R/Python.

**On the first day we will expect you to have**

- A degree in IT, mathematics, computer science or software engineering or related qualification.
- Three years’ experience in a data science related role in a commercial environment.
- An understanding of statistics.
- Proficiency in SQL and database management.
- Proficiency in data science libraries in R, Python or C++.
- Proficiency in Github.
- Proficiency in both Windows and Ubuntu/Linux.
- Experience with API’s and ETL’s.
- Excellent verbal and written communication skills, be able to undertake assignments with minimal supervision and effectively work in teams.
- The ability to produce clear descriptive analysis of empirical research.

**And if possible it would be great if you also had**

- Experience in building data dashboards in Excel, Tableau, Shiny, Online tools, etc.
- Experience in big data.
- Experience in cloud computing/data management (Amazon RDS, AWS, etc).
- Web design experience (HTML/PHP). Data visualisation experience is highly desirable (D3, Tableau, etc).
- Additional studies/degrees in economics, mathematics, statistics, business or humanities would be highly advantageous.

**Desired personal qualities**

- A creative thinker.
- A solution oriented approach to problem solving - happier to try things rather than listing why something won’t work.
- 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.
- Ability to work well with others.

**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:** Please submit a CV and cover letter to jobs@economicsandpeace.org.

**Note:** Applications without a cover letter addressing how you meet the required skills and qualities will not be considered.

Due to the large number of applicants, only short listed applicants will be contacted.

Dependent on the candidate, this role may be offered as a 6 – 12 month contract.

**Only applicants with full working rights in Australia can be considered for the role.**

**Deadline for applications:** 29 February 2020

**Website:** [www.economicsandpeace.org](http://www.economicsandpeace.org), [www.visionofhumanity.org](http://www.visionofhumanity.org)