

Data Science Research Associate Opening

We have an opening for a 4-month position (remote) as a **data science research associate**. The position involves working on a set of projects revolving around digital platform design and serving as project manager on research projects and as an assisting researcher on others. It also requires interfacing with industry partners and supervising research assistants and interns at various levels of seniority.

The ideal candidate is either preparing for an industry position, for example in a technology company, or an academic position in a field closely aligned with research on digital platforms, for which collaboration on the projects would serve as strong preparation.

Depending on the fellow's skills and interests, the fellowship will create the opportunity to: create novel experimental designs, run the experiments in collaboration with technology firms or on tech firm platforms; use and develop cutting edge methodology for working with large data sets, using university infrastructure or the infrastructure of tech firms; including tools of machine learning and causal inference; develop coding expertise for publicly released software; and/or develop expertise in managing large-scale empirical projects with large code bases written by teams.

Following are broad contribution areas:

- Methodologies:
 - Analyses may include the following methods depending on the research question and state of the project:
 - Descriptive analyses involving aggregating and describing consumer behavior
 - Analyzing natural experiments and field experiments
 - Adapting machine learning and causal inference techniques to be useful in the improvement of innovations for learning
- Analyses and coding:
 - As a supervisor:
 - Making architectural decisions about how the code will be structured to carry out the previous tasks
 - Supervising teams of research assistants in assembling data from a variety of sources, running analyses as well as visualizing results and creating tables in a way that is replicable and well-documented
 - Maintaining a public GitHub repository with publicly available datasets or code to read and process publicly available datasets, together with sample code to run newly developed machine learning methods on those datasets
 - As a coder:
 - Writing code and conducting analyses using a variety of modeling techniques from econometrics, statistics, and machine learning
 - Writing and editing highly optimized low-level code to estimate models with many latent variables using methods such as variational inference and stochastic gradient descent
 - Developing and maintaining open source software, primarily written in R, Python, and C++, and releasing it on GitHub

Community building and project management:

- Recruit, train and manage student research assistants. This includes ensuring continuity over projects on which multiple research assistants might work on across time.
- Plan, organize, and oversee research projects. This includes identifying promising research areas, ensuring good progress on projects, and securing all necessary data, research assistants and software to conduct research.
- Contribute to website content and course material that relates to research projects. This includes writing about work to engage advanced student, funder and partner audiences.

The strongest applicants will have a variety of skills and preparation, and will have a strong desire to rapidly obtain any skills and experience that are lacking. Desirable skills and experience include:

- PhD/Masters (economics, statistics, computer science or related fields, with deep expertise relevant to at least some of the problems and methods described above)
- Excellent coding skills in multiple languages (R, Python, STATA)
- Experience with large datasets
- Experience with designing, implementing and analyzing experiments
- Experience using cloud computing services such as AWS, Azure, etc.
- Experience working with Github or similar tools for collaboration and version control
- Experience supervising research assistants

To apply, please send an email including CV and cover letter to datasciencefellow2020@iima.ac.in.

Priority Application Deadline: 5th June, 2020.

Expected remuneration: Rs. 20,000-Rs.30,000 (Depending upon the qualifications)