# Data Scientist / Data Engineer

The Sciences Po médialab is hiring a research engineer to work on the analysis of the French media ecosystem

## About the project

This position is part of the project named GOPI (Geometry of Public Issues), funded by the ANR, the French National Agency for Research. The goal of the project is to develop models to analyze and measure the dynamics of online conversations in the digital public space.

Our team is mass-collecting Twitter and Facebook activity in different countries and using network analysis tools to produce ideological embeddings in which to analyze the dynamic of online public debates. Additionally we monitor on a daily basis, hundreds of French media to track the evolution of the main frame that govern the different socio-technical controversies.

The GOPI project has a highly interdisciplinary team, including political scientists, sociologists, designers, mathematicians, linguists (NLPists), and engineers. We build on state-of-the-art research in data analysis to advance research in social and political sciences, with a focus on online phenomena such as social movements, polarization, extremism, echo chambers, and filter bubbles.

## Key objectives of the position

The primary goal of this position is to develop software tools, to conduct collection operations in a large variety of digital  platforms, and to participate in data analyses. The research engineer to be hired will take part in two types of activities:

- **Data collection**: We aim at improving our social network activity collection in France and around the world, developing the tools and the architecture to scale up our operation.
- **Data science development**: We aim at strengthening our team's ability to implement data science algorithms in network analysis and machine learning methods by 1) refactoring existing code into performant tools, 2) conceptualizing new algorithms, and 3) implementing algorithms proposed in scientific articles.

You can check examples of our data collection and analysis software on our Github page.

## Desired skills & experience

- Python is our team's prefered programming language, others are welcome
- Writing code collaboratively.
- Experience working with online data collection (collection tools, APIs).
- Experience working with remote servers and data wrangling.
- (preferred) Experience implementing data analysis code from state-of-the-art research literature.

- (preferred) Experience writing Python modules.
- (preferred) Experience with social network data and analysis.
- (preferred) Previous experience with TensorFlow and Pytorch is very welcome.
- (preferred) Some experience with DBs (SQL) and with big data tools (elasticsearch, distributed storage, queueing) would be greatly appreciated.
- (prefered) Experience or training in data science. Interest in continuous learning (online courses) is appreciated.
- (prefered) Experience with data science pipelining.
- (prefered) A doctoral degree in computer science is preferable, but other similar backgrounds will be considered. Good MSc and engineering profiles are welcomed too!

## The position

You will join the tech team at médialab SciencesPo in Paris and work with researchers, software engineers, designers, and data scientists. This is a good opportunity to learn a wide range of data science tools in the domains of machine learning, network analysis, with applications to political analysis.

Research engineers are encouraged to participate as co-authors in our output of scientific articles, and to lead their own publications if they wish to do so.

Competitive salary depending on experience.

This is a 12-months position, starting by January 2021 or sooner depending on availability. Possibility of renewal.

We adapt to the evolving working conditions imposed by the COVID19 pandemic, part-time remote work is possible.

## To apply

Send a CV and cover letter detailing your motivation and relevant skills for the position and if applicable a link to your recent scientific publications (published or in prep.) / development project on github by November the 30th 2020 to this email address: recrutement.medialab@sciencespo.fr.

For inquiries about the position:
pedro.ramaciottimorales@sciencespo.fr
jean-philippe.cointet@sciencespo.fr

The candidate can start as early as January 2021. However, there is some flexibility. Please indicate in your application tentative dates by which you would be available to start.