Post-Doctoral Fellowship Opportunity

The Billinge group is seeking to fill a post-doctoral research position on the science of synthesis. The goals of the project are to learn about the nature of solid-state chemical synthesis by coupling in-situ synthesis experiments at synchrotron x-ray and neutron sources with structural outcomes using advanced high throughput data analysis methods. The project will involve developing software and computational infrastructure for advanced high-throughput data analysis, modeling and interpretation using tools including artificial intelligence and machine learning. The successful candidate will also help with data acquisition from in-situ data acquisition experiments and with data analysis. They will also be expected to work with domain scientists in synthesis and diffraction and with applied mathemeticians with expertise in AI to provide powerful materials genomics tools to reach the targe goal of understanding synthesis pathways by finding relationships between inputs and outputs.

we seek candidates who are recent Ph.D. graduates in materials science, chemistry, physics, earth science, data science, computer science or a related field. Knowledge of x-ray, neutron or electron diffraction/scattering, synchrotron radiation experiments, data analysis, data science, software development in general and python programming in particular, are desirable but not required. In addition, experience in in-situ experimentation and database setup. is valuable. An ability to work well in a team environment is required.

We encourage applications from candidates with diverse backgrounds, experiences, and identities.

Appointment and Funding

We are seeking a post-doc to start on or around May 1st, 2019. The position is initially for one year with funding available for a second year if all parties wish to continue with the activity. A third year may be possible after review of progress and pending the availability of funding.

Application Process

To apply, please submit the following materials to sb2896@columbia.edu with [1903efrc post-doc] followed by your name in the subject line. Candidates are encouraged to apply as early as possible and preferably before February 28th, 2019.

Please submit as attachments to the email:

- A cover letter that explains your motivation for applying to this program
- A curriculum vitae (including a list of publications)
- PDF copies of the three publications that you are most proud of that describe work that was led and predominantly carried out by you.

- [optional] links to any open-source software projects that you have contributed to significantly, and a description of your contributions.
- A brief research statement that summarizes current research interests, past accomplishments,and future research goals.
- Three letters of reference submitted directly by the recommenders to sb2896@columbia.edu, preferrably with the subject line [your name, recommendation]

You will be contacted with an acknowledgement of receipt, and then contacted again if you are shortlisted for an interview. Please send a followup email if you do not receive an acknowledgement within 2 days of sending the application.