Harnessing a cancer patient’s immune system to fight their disease is a promising new frontier in cancer treatment. Our multi-site team of machine learning experts is collaborating with experts in cancer immunotherapy at several leading cancer centers and universities. Our goal is to figure out how to better target therapies to patients by learning from biomedical data. We have an open RA position starting immediately. This is a contract position through June 30, 2019, with potential to extend. The position is ideal for a recent undergraduate or M. Eng student wishing to gain research experience prior to pursuing a Ph.D. Interviews will start immediately.

The successful candidate will have the following required skill set:

- Proficiency in Python programming—in particular scientific computing using numpy/scipy/sckit-learn/pandas
- Familiarity with Git version control, Unix/Linux systems and Windows;
- Comfort with command-line tools and scripting (e.g. bash and/or powershell)
- Basic expertise, such as would be acquired through undergraduate courses, in each of machine learning and biology
- Clear and concise communications skills.

Additional preferred skills (desired but not required) include:

- Familiarity with biological data formats (VCF, plink, BAM, etc.) and programs to process them (e.g. plink/GATK/Mutect/Broad firehose/UCSC Genome Browser);
- Experience with High Performance Computing (HPC e.g. clusters, basic parallel programming, GPU computing)
- Ability to run, manage and organize large-scale computational experiments, along with processing and plotting of results.

Specific tasks the candidate will engage in include managing and processing access-controlled data sets (e.g., from NIH portals and similar). This involves decrypting, organizing, filtering and pre-processing data via often unwieldy pipelines, potentially on our Microsoft Research cluster. Some basic analysis (or more expert if applicable) downstream of this will also be required. Other tasks include running our own programs (and others) on the Microsoft Research HPC cluster, deploying code/algorithms on Microsoft’s Azure platform, and general programming for various projects.

The candidate will work under the supervision of Lester Mackey, Vasilis Syrgkanis (located in our New England lab in Cambridge, MA) and Miro Dudík (located in our New York City lab in Manhattan). Although Cambridge, MA is the preferred location for this position, it may also be possible to locate the position in NYC if needed. Applicants must be eligible to work in the U.S.

TO APPLY:
Please email the following to msrsu2cRAjobs@microsoft.com. By submitting your application to msrsu2cRAjobs@microsoft.com you agree to the Microsoft Careers Privacy and Cookies policy. Use “MSR SU2C RA Position” as the subject line to ensure that your application is filed properly. Be sure to include the following:

1. A cover letter that includes:
   - A description of your level of expertise in the required and preferred skills listed above.
• A brief description of your experience as a research assistant and with any independent research (e.g. thesis or other research projects).
• The names of two or three references, and their contact information. At least one reference must be someone for whom you have worked as a research assistant or someone who has supervised your work in computational biology or machine learning.
• Your immigration status (U.S. citizen or permanent resident).

2. A current CV.
3. All relevant academic transcripts (unofficial is fine).