Postdoc Position in AFNI Group Scientific and Statistical Computing Core, NIMH (Bethesda MD USA) <u>https://afni.nimh.nih.gov</u>

Announcement: November 2017

We are looking for someone to work on scientific/statistical computing applied to brain imaging. Problems we want to address include (but are hardly limited to):

- Better methods for detection of image changes between groups of subjects (including integrating single subject and group analyses into one processing step).
- Working with the new Machine Learning Team to develop better methods for denoising FMRI datasets.
- Develop methods for testing a single subject's FMRI data vs. a "fiducial" group, to find outlier results.

In all cases, work is done in collaboration with NIH researchers to ensure that the resulting methods and software are useful and usable.

Desired background:

- Strong skills in scientific computing, particularly the use of C and/or C++, with Python and OpenGL experience also being useful.
- Mathematical and statistical background commensurate with the ability to understand technical papers on data analysis methods, to critique them, and to develop new ideas for data analysis. Experience in computational linear algebra desired (beyond just using canned libraries).
- Basic knowledge (at least) of common functional MRI data analysis methods.
- An interest in "problem solving" and the ability to work independently on problems, as well as to collaborate with the rest of the group.

This position is a 1 year appointment, renewable 2 times (for a total duration of 3 years). More information on NIMH fellowship programs can be found at

• <u>https://www.nimh.nih.gov/labs-at-nimh/scientific-director/office-of-fellowship-and-t</u> <u>raining/fellowships-and-training-programs/index.shtml</u>

Contacts:

- Robert Cox <u>robertcox@mail.nih.gov</u>
- Paul Taylor <u>paul.taylor@nih.gov</u>