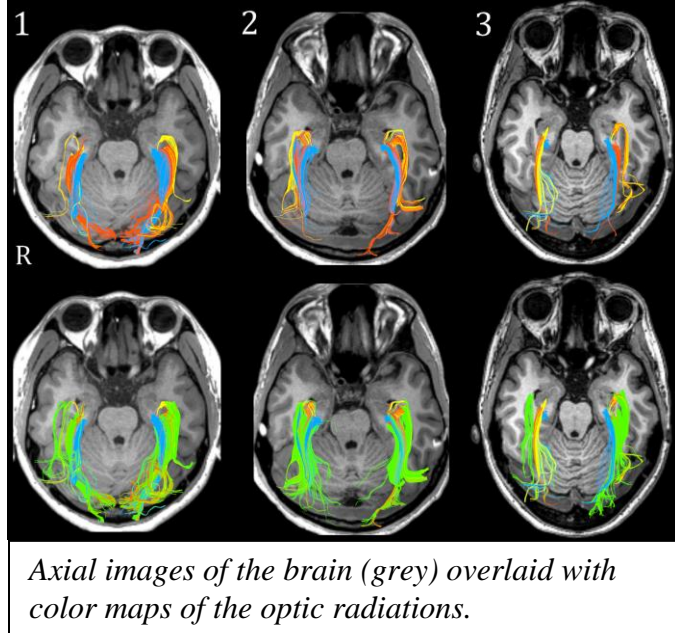


## Internship: Mapping the brain's visual system through MRI

Are you interested in how MRI can be used to understand the brain's structure and function? Would you like to help develop these methods so that we can use them to help children being considered for brain surgery? If so read on!

Susan Bookheimer's Lab at UCLA and the Semel Institute is focused on developing new methods of acquiring and analyzing MRI data. One of our main areas of interest is the use of these methods to assist in mapping brain structure and function in individuals being considered for neurosurgery.



**Your role:** For this internship you would be working on a study mapping part of the visual system - the optic radiations - in MRI images of individuals with epilepsy. Our ability to do this is particularly important, as it's estimated that 50-100% of individuals who undergo brain surgery to treat a particular form of epilepsy (temporal lobe epilepsy) will suffer some vision loss through damage to this brain structure.

Your central task would be analyzing a large existing dataset - tracing brain regions and generating maps of the white matter - and helping to prepare a related publication, on which you would be a coauthor. More broadly, while working with us you would (a) assist in analyzing MRI data; (b) review relevant literature; and (c) potentially attend some MRI scans. This would translate to you having experience in analyzing MRI data and the research process as a whole. The internship runs from early October to the start of March and is located in the Semel Institute (760 Westwood Ave). Ideally we are looking for someone for two 6 hour periods weekly for this unpaid internship but this can be flexible.

**Your skills:** With respect to your background, the internship is likely to interest you if you have an interest in neuropsychology/neuroscience and/or computing. With respect to personal qualities you will be confident, methodical and self sufficient, and able to take initiative to solve problems. Experience with excel is necessary as is experience with some basic image manipulation (e.g., photoshop). Some computing experience (e.g., using Linux, shell scripting and/or MATLAB) would be a big plus. Experience with imaging software (FSL) would also be helpful.

If you are interested please email me a paragraph describing your background and your interests with a CV. We'll begin interviewing in the week of September 24. Thank you!

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