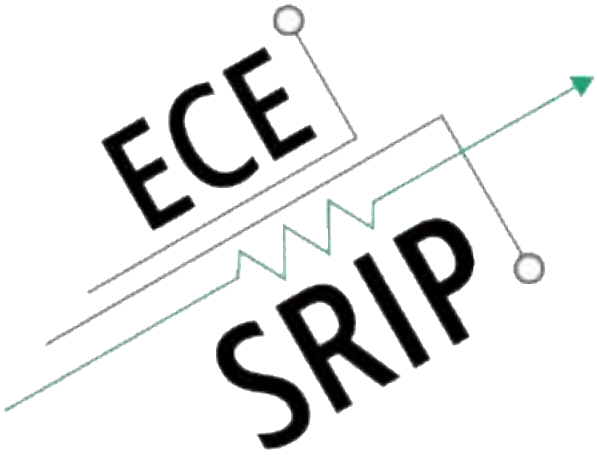


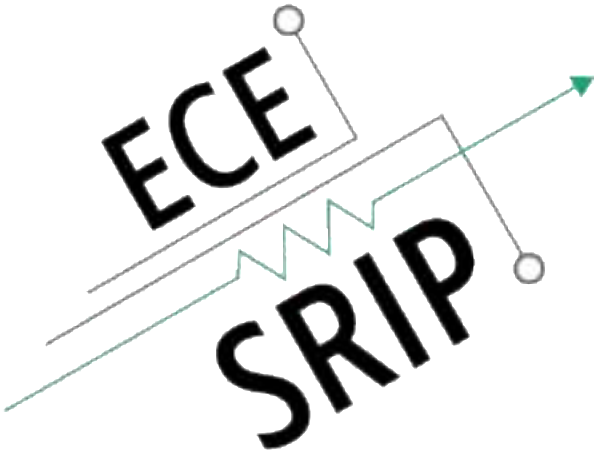
FACULTY MENTOR
Liu, Thomas

PROJECT TITLE
Studying Dynamic Brain Activity with Simultaneous EEG-fMRI

PROJECT DESCRIPTION
Functional Magnetic Resonance Imaging (fMRI) and electroencephalography (EEG) are two of the most widely used methods for obtaining non-invasive measures of human brain activity. In this project we use simultaneously acquired EEG and fMRI data to understand the mechanisms of dynamic brain activity. As an intern you will have the opportunity to learn about the acquisition and analysis of fMRI and EEG data and contribute to the development of novel processing and analysis methods and the discovery of new aspects of dynamic brain activity.

INTERNS NEEDED
2 BS or MS students

PREREQUISITES
Basic signal processing and working knowledge of MATLAB or Python.



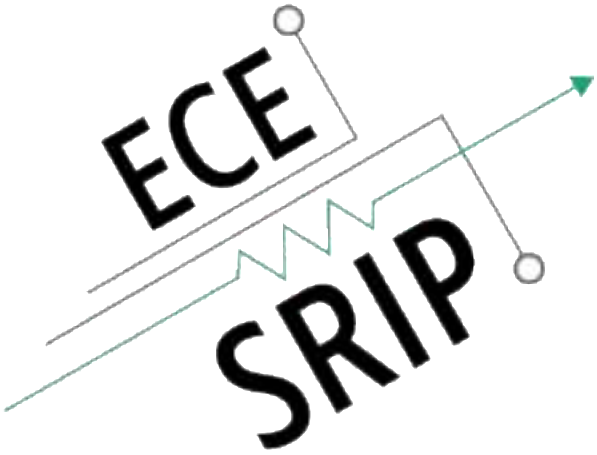
FACULTY MENTOR
Liu, Thomas

PROJECT TITLE
Deep Learning for Understanding Brain Activity

PROJECT DESCRIPTION
In this project we are using deep learning networks to identify the spatiotemporal features of brain activity that vary between individuals. As an intern you will have the opportunity to learn about functional magnetic resonance imaging (fMRI) and apply deep learning methods to fMRI data.

INTERNS NEEDED
2 BS or MS students

PREREQUISITES
Basic signal processing and working knowledge of MATLAB or Python; Familiarity with deep learning tools such as TensorFlow or Keras is highly desirable.



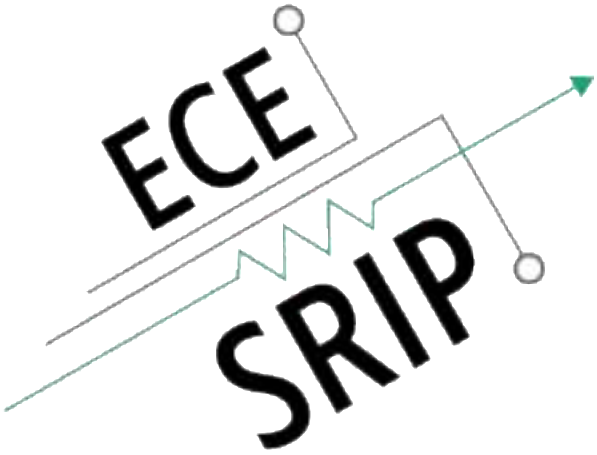
FACULTY MENTOR
Liu, Thomas

PROJECT TITLE
High Performance Functional MRI

PROJECT DESCRIPTION
Functional Magnetic Resonance Imaging (fMRI) is one of the most widely used methods for studying human brain function. In this project we are developing and assessing the performance of new methods for acquiring and analyzing fMRI data. As an intern you will have the opportunity to learn about fMRI and develop novel processing and analysis methods.

INTERNS NEEDED
2 BS or MS students

PREREQUISITES
Basic signal processing and working knowledge of MATLAB or Python.



FACULTY MENTOR

Liu, Thomas

PROJECT TITLE

Non-invasive imaging of the neurovascular system using magnetic resonance imaging (MRI)

PROJECT DESCRIPTION

Magnetic Resonance Imaging (MRI) is a powerful and widely used method for non-invasive imaging of the body. The neurovascular system is critical for brain health and can be damaged with infection and disease. We have an ongoing project to develop and assess MRI methods to gauge the status of the neurovascular system. As an intern you will have the opportunity to learn about MRI and develop processing and analysis code.

INTERNS NEEDED

2 BS or MS students

PREREQUISITES

Basic signal processing and working knowledge of MATLAB or Python.