Background:
Last summer I did research at MIT with Professor John Guttag in the Data-Driven Inference Group. In collaboration with neurologists at Massachusetts General Hospital, we were developing a system to automatically assess the severity disease in patients of Parkinson’s. After becoming excited about this area of research, I thought about creating software for the Apple Watch and iPhone to track tremor severity over time. This project has two primary components: building the software to acquire data and interface with both patients and doctor's, and analyzing this data to obtain useful insights. I will work on the first component as part of my computer science senior project. The second part will be my research with Professor Sahand Negahban as an independent study.

Project Description:
Before we can analyze any data, we must first collect it. The collection task falls under the computer science component. I will build an app for the watch that makes use of Apple’s watchOS API to obtain the relevant information. I also plan on building an interface for iOS devices that allows patients to examine this data, initiate reads, view graphs of their information over time, and view historical data.

I have already begun the process of getting in contact with neurologists at Yale Medical, including Dr. Elan Louis. We hope to partner with at least one doctor to have a patient test the software in the field.