RatGPS 2

Team Members

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Initial plan

What data will you be using?

In this project, we are going to use data provided in the github repository of the "MouseLand" project. It contains the recording of 10,000 neurons in response to 2,800 natural images.

What methods do you plan to use? (very high level - i.e we will use recurrent networks or "we will do something like this article)

We will try some classification models (Logistic Regression, Convnets, etc.) and select the most suitable based on their performance.

Initial schedule

Week 1 (Nov 15-21): Data Analysis

• This step includes several processes such as data cleaning, visualisation, interpretation and feature extraction.

Week 2 (Nov 22-28): Choosing the model

• Multiple classification models will be tested on the prepared data to choose one which has the best results.

Week 3 (Nov 29 - Dec 5): Improving the model

• Chosen model will be improved by fine tuning the hyperparameters.

Week 4 (Dec 6 - Dec 12): Presentation & Blog post

• Final presentation will be prepared. Blog post will be written along with the previous steps as a documentation of the work that is being done.

Work Distribution

Elvin and Dariya will work on Data Analysis (data gathering, cleaning, analysing, distribution and correlation, visualization)

Thomas and Ashraf will work on Models (selecting models, analyzing, improving)