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CNS 187
Final Project Topic Choice
14 May, 2023

For my final project I will work on Topic 2: Models of recognition memory with single-trial learning, from the provided project prompts. As stated in the document this project will entail a detailed study of the paper Meta-learning synaptic plasticity and memory addressing for continual familiarity detection by Tyulmankov et al.. After reproducing the key results from this paper, I would like to investigate question 2c, for which I will use the MNIST dataset to test how well this network can generalize. In other words, using the MNIST dataset, how well can the network recognize the same digit written slightly differently, and how might such invariance depend on the parameters of the network.

As recommended, by May 25th I will reproduce the results from the paper. The rest of the time until the deadline will be spent investigating this question of generalization.