

NETS 150, HW5

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**Project Category:** Implementation, Empirical Analysis

**Project Breakdown:** We will be building an iOS app designed to model the spread and effects of COVID-19 on a map-based interface. This model will show how the virus would spread over time, based on a variety of inputs such as transmission rate, recovery time, and mortality rates. The map will show a physical representation of the model, as well as showing testing locations and hospitals. We plan to focus the map on a particular region, likely Philadelphia. As an extension, we will provide a space for users to input different values for the inputs which guide the model.

**Concepts:** Our project is going to model a *social network* and will be similar in logic to HW2's Schelling Simulator model. Further, we'll use this graph representation to track the spread of the virus through social circles and networks, similar to BFS.

**Work Breakdown:** Caroline is going to do most of the iOS development, and JJ is going to do a lot of the report work (describing the model, effects of the virus in social networks, and findings from the app).