

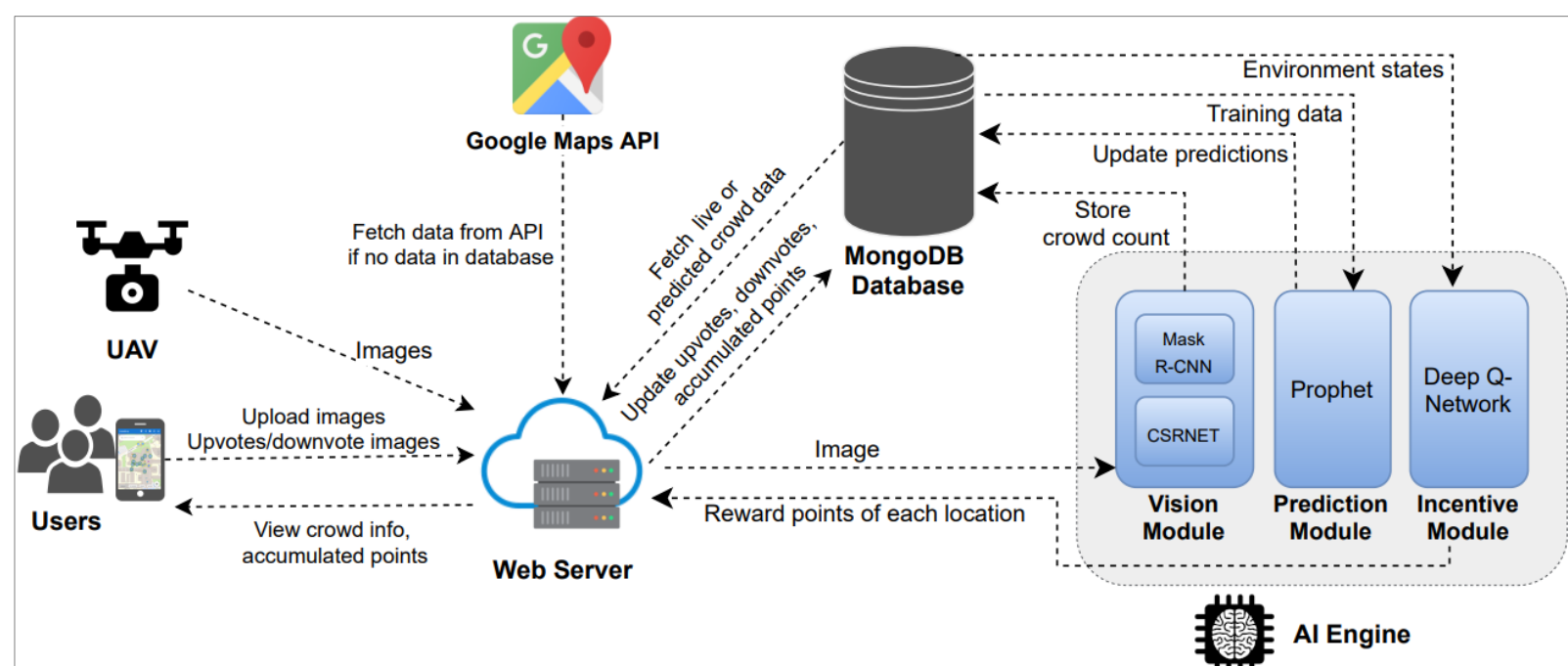
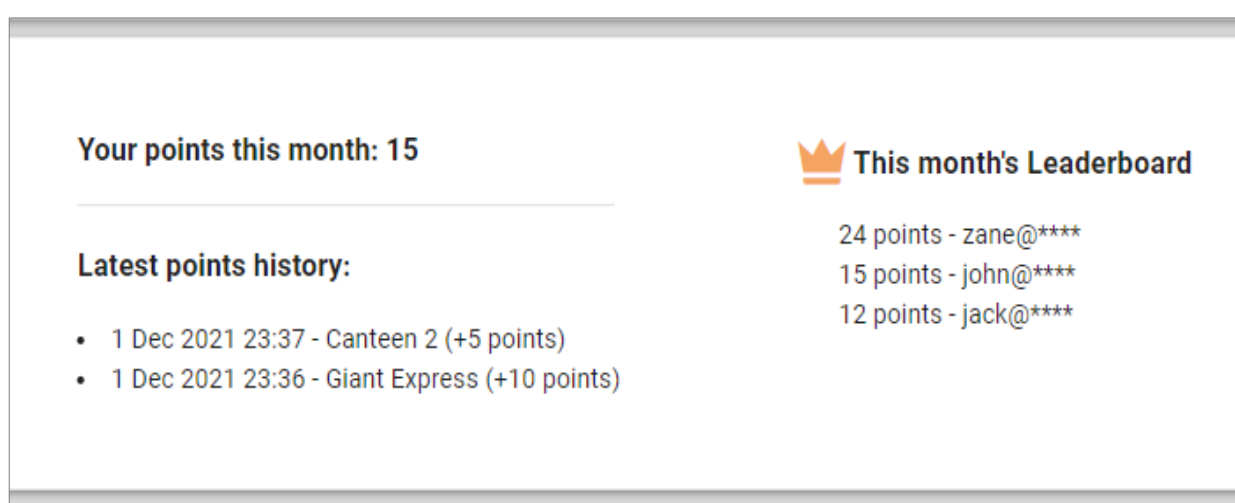
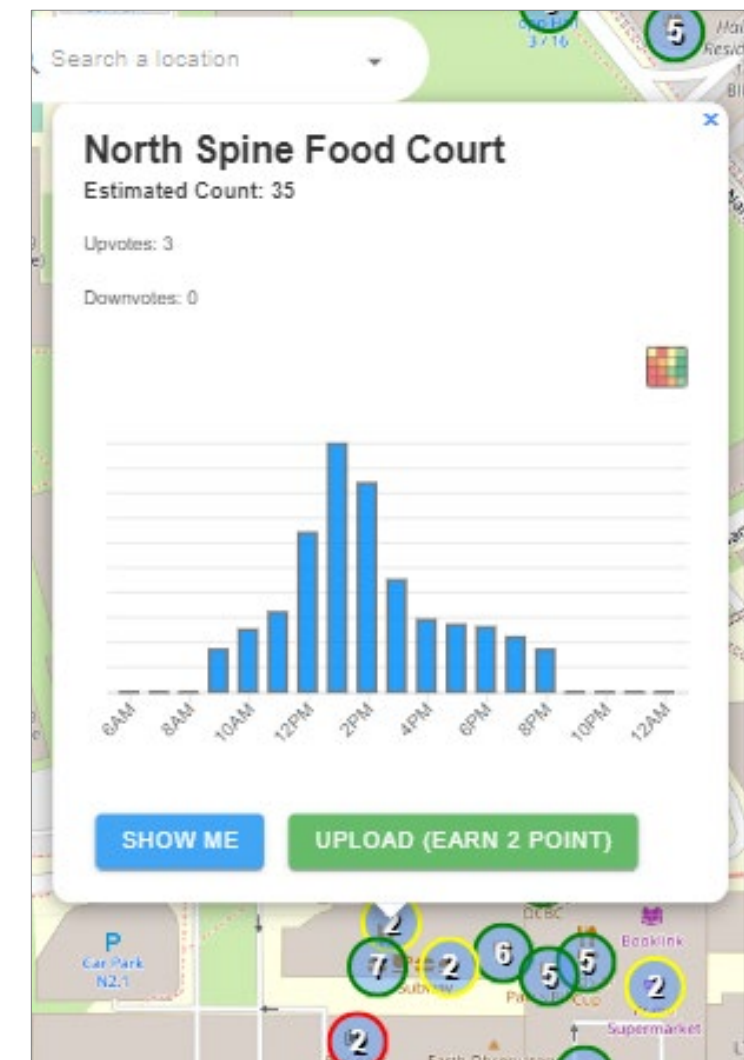
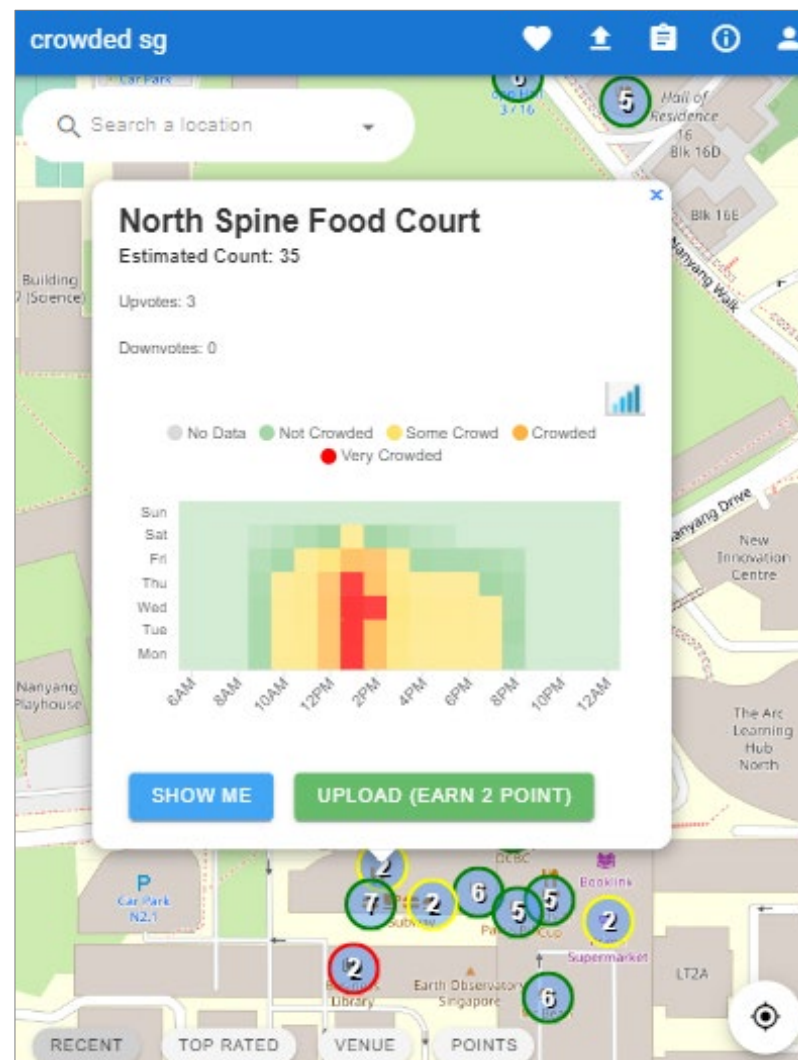
Dynamic Incentive Mechanism for CrowdedSG to facilitate COVID-19 social distancing

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Project Objectives:

This project aims to introduce a dynamic incentive mechanism to motivate users image uploads to CrowdedSG, a crowdsourcing website. Increased image uploads enables CrowdedSG to provide more up-to-date crowd information and more data for training the crowd forecasting model, allowing users to make more informed social distancing decisions.



List of Features:

- Dynamic reward points
- Leaderboard
- Historical data in bar chart and heatmap

Implementation:

Deep Q-Network was trained using current and next hour crowd level, click rate, time since last upload and upload rate in past one hour, allowing mechanism to be forward-looking in allocating reward points optimally while minimizing cost.

