Machine Learning,

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Final project proposal

This semester I am taking another class which have a final project of design a WIFI-based Indoor Positioning System. During the testing phase of our project, I noticed that our triangulation algorithm is too accurate to work with raw data we collected which contain unseen error in different type of obstacle. Those errors bring a lot of uncertainty to our model of relationship between WIFI signal strength and distance.

I think the KNN algorithm can be used to work on raw data to improve the over all accuracy of our project. Since our raw data contains the WIFI ssid and its signal strength at given position, we can first record WIFI signal at given spot in a unknown space, then use the KNN algorithm to calculate a new spot in this known space.