

Capstone Project 1 Ideas

<Write a description for three capstone project ideas. Your ideas can be broad and high-level. The descriptions should address the problem and identify the data you'll use to solve it. You do not need to talk about specific methods and techniques>

Below are the three proposals for the first Springboard capstone project

1. Mobile network traffic prediction:

Optimizing the efficiency of network utilization can reduce the capital expenditures (deploying more base stations, and adding more data processing units) and operating expenses (energy consumption, maintenance spending) for mobile network operators

Data source: telecom italia open big data challenge dataset - [A multi-source dataset of urban life in the city of Milan and the Province of Trentino Dataverse](#)

2. Customer churn prediction:

Since Jio started in India a lot of customers started to move to this new network operator. TRAI captures and produces reports monthly statewise for new customers added and existing customers moving from one operator to another. Predict the customer churn rate based on TRAI data - mycall app, myspeed and subscriber base information.

TRAI collects publicly sourced information for call quality and internet speed using mycall and my speed apps respectively. TRAI also produces a monthly report on the number of subscribers statewise.

Data source: <https://main.trai.gov.in/release-publication/reports/telecom-subscriptions-reports>
https://main.trai.gov.in/sites/default/files/AUSPI_12.pdf

3. QoS prediction based on signal strength:

Predict the signal strength based on the CAIDA anonymized data and deduce the Quality of Service provided to the customer.

Data source: CAIDA anonymised internet traces [The CAIDA Anonymized Internet Traces Dataset \(April 2008 - January 2019\)](#)