Big Data Programming at PlaceIQ

By Barbara Mucha, VP of Engineering at PlaceIQ

Abstract: Big data refers to data sets that are so voluminous and complex that traditional data-processing application software are inadequate to deal with them. Big data challenges include capturing data, data storage, data analysis, search, sharing, transfer, visualization, querying, updating, information privacy and data source.

Data sets grow rapidly, in part because they are increasingly gathered by cheap and numerous information-sensing Internet of things devices such as mobile devices. The world's technological per-capita capacity to store information has roughly doubled every 40 months since the 1980s; as of 2012, every day 2.5 exabytes (2.5×10¹⁸) of data are generated. Based on an IDC report prediction, the global data volume will grow exponentially from 4.4 zettabytes to 44 zettabytes between 2013 to 2020. By 2025, IDC predicts there will be 163 zettabytes of data.

PlaceIQ collects mobile devices and it's locations. One measurement product is Place Visit Rate (PVR®). It is a metric that measures the direct effect of advertising on actual visits to stores, restaurants, auto lots, and other physical locations. This talk will describe how PVR is written at PlaceIQ using the Big Data Framework (From Java to Pig to Scala using Spark) including an example of map-reduce.

About Barbara Mucha: Barbara Mucha serves as a VP of Engineering at PlaceIQ. PlaceIQ is a leading data and technology company that helps businesses leverage location based insights to connect with and understand audiences. As one of the early members of the engineering team, Barbara has worked on and led teams in the building of the core PlaceIQ technology, including Place Visit Rate and location based audiences. Prior to joining PlaceIQ, Barbara was a Technical Manager at Starwood Hotels and Resorts Worldwide where she worked and managed a team on the CRM (Central Reservation Management System). Barbara has also served as a member of the engineering organizations at Goldman Sachs and Anheuser Busch.

Barbara received her MS in Computer Science from Stony Brook University, and prior to that her BA in Computer Science from Seton Hall University. While at Seton Hall, Barbara completed research on Lambda Lifting which resulted in two peer-reviewed publications. Barbara first attended Seton Hall University to live out her dream of becoming a teacher in mathematics, but her now mentor Professor Morazan led her to change majors and become a computer science major. In that vein, Barbara enjoys mentoring other young students to help them find their niche and mentors some of Professor Morazan’s current students.