

## Activity-based User Behavior Analytic Using In-memory Processing

**Abstract.** Users' activities produce enormous amount of data when using popular devices such as smartphones. These data can be used to develop behavioral models in several areas including fraud detection, finance, recommendation systems and marketing. However, enabling fast analysis of such a large volume of data using traditional data analytics may not be applicable. As a result, many organizations who are seeking to collect, process and analyze big data have adopted a newer class of technologies that includes Hadoop and related tools such as YARN, MapReduce, Spark, Hive and Pig as well as NoSQL databases. This research reports on the feasibility of user behavior analytics based on their activities in applications with large number of users using in-memory processing. We present a new instantaneous behavioral model to examine users' activities and actions rather than results of their activities in order to analyze and predict their behaviors. For the purpose of this research we intend to design a survey application to collect user activity data such as users' swipes and taps from different groups of people, and predict some basic information like demographic information about them, furthermore we are going to study possibility of predicting users' future activities, and our ultimate goal will be utilizing all these knowledge in order to create insights in different areas.

**Biography.** Mr. Seyedfaraz Yasrobi is a second-year graduate student in M.S. in Computer Science degree program at East Carolina University. This presentation is based on his thesis research titled "Activity-based User Behavior Analytic Using In-memory Processing" conducted under the supervision of Dr. Nasseh Tabrizi. Mr. Yasrobi's research interests include "Big Data Analytics, Real-time Analytics, and Distributed Computing". As part of his research, he has implemented a Hadoop cluster which is being used by other researches in the area of Big Data and real-time analytics.



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1:00pm – 1:50pm  
Bate Building  
Room 1001  
Refreshment will be served