Abstract

Streaming analytics is about identifying and responding to events happening in your business, in your service or application, and with your customers in near real-time. Sensors, mobile and IoT devices, social networks, and online transactions are all generating data that can be monitored constantly to enable a business to detect and then act on events and insights before they lose their value. The need for large scale, real-time stream processing of big data in motion is more evident than ever before but the potential remains largely untapped by most firms. It’s not the size but rather the speed at which this data must be processed that presents the greatest technical challenges. Streaming analytics systems can enable business to inspect, correlate and analyze data in real-time to extract insights in the same manner that traditional analytics tools have allowed them to do with data at rest. In this talk I will draw upon our experience with Amazon Kinesis data streaming services to highlight use cases, discuss technical challenges and approaches, and look ahead to the future of stream data processing and role of cloud computing.

Biography

Roger Barga is General Manager and Director of Development at Amazon Web Services, responsible for Kinesis data streaming services including Kinesis Streams, Kinesis Firehose, and Kinesis Analytics. Before joining Amazon, Roger was in the Cloud Machine Learning group at Microsoft, where he was responsible for product management of the Azure Machine Learning service. His experience and research interests include data storage and management, data analytics and machine learning, distributed systems and building scalable cloud services, with emphasis on stream data processing and predictive analytics. Roger is also an Affiliate Professor at the University of Washington, where he is a lecturer in the Data Science and Machine Learning programs. Roger holds a PhD in Computer Science, a M.Sc. in Computer Science with an emphasis on Machine Learning, and a B.Sc. in Mathematics and Computer Science. Roger holds over 30 patents, he has published over 100 peer-reviewed technical papers and book chapters, and authored a book on predictive analytics.