Sink or Swim: How Not to Drown in Colossal Streams of Data?

Nitin Agrawal
Samsung

ABSTRACT
Data has become a societal utility empowering applications previously unimaginable for computers to perform. Large-scale data gathering and processing lies at the core of many of the fundamental advances in computer vision, predictive analytics, natural language processing, search, and their applications in our day to day lives. But soon, we may have too much data, from sensors, machines, and personal devices, to store, process, and analyze in a timely and cost-effective manner. In this talk, I will highlight potential challenges, and research opportunities, in designing systems to handle this data deluge. The talk borrows from recent work on SummaryStore, an approximate storage system for low-latency querying on large volumes of data streams.

BIOGRAPHY
Nitin Agrawal heads the systems research lab at Samsung’s Artificial Intelligence Center in Mountain View, CA. His work is broadly in systems, with an emphasis on storage, mobile, and distributed systems, and has received multiple best-paper awards, led to commercial & academic impact, an outstanding patent award, and widespread media attention. He served as the program committee chair for USENIX FAST ’18 and earned his doctorate from the University of Wisconsin - Madison.