**Title**:

LOGIC: Log Intelligence in Cloud

**Abstract**

Cloud platforms such as Microsoft Azure, Google Cloud, and Amazon AWS provide a variety of online services to millions of customers across the globe. Therefore, maintaining and improving availability, reliability, and performance are essential to ensure the quality of cloud services. However, system regressions and unplanned service interruptions can lead to negative customer experience. Logs, in this regard, have great value to provide analytical insights on abnormal operations and root causing issues that help drive actions. However, the large volume of data and the complex and unstructured formats in logs present a significant challenge to tackle the problem at scale. In this paper, we propose a comprehensive and end-to-end log mining solution, LOGIC, for automatic and effective system regression prevention and incident diagnosis. It consists of two components, including log-structurization and log-trimming parts.