Keynote: Building storage systems for emerging applications and technologies

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KEYNOTE ABSTRACT

The modern storage landscape is changing at an exciting rate. New technologies, such as Intel DC Persistent Memory, are being introduced. At the same time, new applications such as blockchain are emerging with new requirements from the storage subsystem. New regulations, such as the General Data Protection Regulation (GDPR), place new constraints on how data may be read and written. As a result, designing storage systems that satisfy these constraints is interesting and challenging. In this talk, I will describe the lessons we learned from tackling this challenge in various forms: my group has built file systems and concurrent data structures for persistent memory, storage solutions for blockchains, and analyzed how GDPR affects storage systems.

SPEAKER'S BIOGRAPHY

Vijay Chidambaram is an Assistant Professor in the Computer Science department at the University of Texas at Austin. His research aims to build the next generation of storage systems with high performance and strong reliability. His papers have been awarded Best Paper Awards in ATC 2018, FAST 2018, and FAST 2017. He was awarded the NSF CAREER Award in 2018, SIGOPS Dennis M. Ritchie Dissertation Award in 2016, the Microsoft Research Fellowship in 2014, and the University of Wisconsin-Madison Alumni Scholarship in 2009. His work has resulted in bugs being fixed in the Linux kernel, and techniques from his work have been incorporated into commercial products.