Dr. Jin Li is a Partner Research Manager of the Cloud Computing and Storage group at Microsoft Research. He leads the Deep Learning (DL) workspace project, a Kubernetes driven heterogeneous and multi-tenant cluster computing AI platform that can manage AI training, interactive exploration, inference, and analytics. DL workspace also targets to enhance the productivity of AI scientist, version controls all aspect of data, program, and model, allow scientists to easily collaborate, repeat and extend experiment among themselves. The platform is open sourced, and is used in daily production and developed by multiple Microsoft teams (Microsoft Cognitive Services, Bing Relevance, etc..).

Partner with Windows Azure, he leads a small team of MSR researchers to develop the local reconstruction code (LRC) in Windows Azure Storage. This is a new family of erasure codes that provide significant reduction in storage overhead and cut down the minimum number of fragments that need to be read to reconstruct a data fragment. It leads to hundreds of millions dollars of savings for Microsoft, a Best Paper Award at USENIX ATC 2012 and a 2013 Microsoft Technical Community Network Storage Technical Achievement Award. His group has also architected the erasure code used in Storage Spaces in Windows 8.1 and Windows Server 2012 R2, and the erasure code used in Lync, Xbox and RemoteFX.

Partner with Windows File Server group, he architected and implemented the Primary Data Deduplication feature in Windows Server 2012 and End-to-End Deduplication for Storage Virtualization in Windows Server 2012 R2. Key contributions include a new data chunking algorithm, a low RAM footprint indexing data structure to detect duplicate data (based on ChunkStash), and a data partitioning and reconciliation technique, the latter two for scaling index resource usage with data size. It leads to major saving to customers (20-82%), and is among top 3 features for Windows File Server introduced at Windows Server 2012. The feature has received rave reviews from press, and there are evidence that some customers upgrading to Windows Server 2012 for the primary data deduplication feature only.

He has pioneered a series of research to exploit the benefit of SSD for high performance storage applications. His work, FlashStore, has implemented a SSD optimized, low RAM footprint key-value store that organizes storage on flash in a log-structured manner. It was tech transferred to Pegasus SSD in Microsoft backend. SkimpyStas has implemented an ultra-low RAM footprint key-value store. The storage layer design of SkimpyStash has been incorporated into BW-Tree, a joint project with MSR Database group, and Azure DocumentDB team, and is shipping in SQL Server 2014 (Hekaton) and Azure DocumentDB.

Partner with Remote Desktop Virtualization (RDV) team, he has assisted to architect and implement the RemoteFX for WAN feature in Windows 8 and Windows Server 2012, which provides fast and fluid user experience in a remote session running over any WAN and wireless networks.

His other invention has been integrated into many Microsoft products, such as WMA9, Live Messenger, Live Mesh, Windows 7, Lync, Bing, Xbox Live. He was awarded the prestigious Microsoft Gold Star Service Award 4 times, in 1999, 2001, 2006 and 2010. Dr. Li has graduated from Microsoft Member Bench Program in 2007.

He received his Ph.D. (with honor) from Tsinghua University in 1994. He joined Microsoft in 1999, as one of the founding members of Microsoft Research Asia (Beijing, China). (He has won a Microsoft Gold Star service award in 1999 for his contribution). From 2000, Dr. Li has also served as an Affiliated Professor in Tsinghua University.

He was the recipient of Young Investigator Award from Visual Communication and Image Processing’98 (VCIP) in 1998, the ICME 2009 Best Paper Award, and USENIX ATC 2012 Best Paper Award. He is/was the Associate Editor/Guest Editor of IEEE Trans. On Multimedia, Journal of Selected Area of Communication, Journal of Visual Communication and Image Representation, P2P networking and applications, Journal of Communications. He is the current ICME steering committee chair.

He has served/will serve as the General Chair of PV2009, the lead Program Chair of ICME 2011, the TPC Chair of CCNC 2013 and the TPC Chair of ACM Multimedia 2016. He is an IEEE Fellow.