

CDS Distinguished Colloquium Spring 2021 Series

11:30AM to 12:30PM
Tuesday, April 13, 2021

Zoom Webinar ID: 998 2943 6376
Passcode: 357363

“Networked Systems in the Era of Programmable Dataplanes”

Abstract: Emerging networking architectures are allowing for flexible and reconfigurable packet processing at line rate both on the switch and the NIC. Despite their promising new functionality, programmable switches and NICs are not all-powerful; they have limited state, support limited types of operations, and limit per-packet computation to operate at line rate. In this talk, I will describe how to mask resource limitations using approximation techniques and new scheduling algorithms and how to build a general framework for exposing in-network computing capability to distributed applications. In addition to presenting case studies of optimizing networked systems, I will reflect on the role of programmable dataplanes in datacenter computing.



Arvind Krishnamurthy
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Bio: Arvind Krishnamurthy is Short-Dooley Professor in the Paul G. Allen School of Computer Science & Engineering. His research interests span all aspects of building effective and robust computer systems, in the context of both data centers and Internet-scale systems. More recently, his research has focussed on programmable networks and systems for machine learning. He is an ACM fellow, a past program chair of ACM SIGCOMM and Usenix NSDI and serves on their technical steering committees, is the Vice President of Usenix, and serves on the ICSI and CRA boards.

This is to certify that _____ attended this seminar. Certified by _____.
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