Anuj Kalia

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Education

2013—2019 **Ph.D. in Computer Science**, *Carnegie Mellon University*.
Adviser: Prof. David Andersen

2009—2013 **B.Tech. in Computer Science and Engineering**, *IIT-Delhi*.
GPA – 9.75, 2nd in class

Work experience

Nov 2020– Researcher, Microsoft Azure for Operators Office of the CTO

Jan–Nov 2020 Researcher, Microsoft Research Redmond

Oct—Dec 2019 Post-doctoral scholar, Carnegie Mellon University

Fall 2015 Research Intern, Microsoft Research, Cambridge, UK

Conference publications

ACM SIGCOMM, 2023 — Resilient Baseband Processing in Virtualized RANs with Slingshot
Nikita Lazarev, Tao Ji, **Anuj Kalia**, Daehyeok Kim, Ilias Marinos, Francis Y. Yan, Christina Delimitrou, Zhiru Zhang, Aditya Akella

USENIX NSDI, 2023 — Scalable Distributed Massive MIMO Baseband Processing
Junzhi Gong, **Anuj Kalia**, and Minlan Yu

ACM CoNEXT, 2020 — Agora: Software-based Real-time Massive MIMO Baseband
Jian Ding, Rahman Doost-Mohammady, **Anuj Kalia**, Lin Zhong.

ACM SoCC, 2020 — Challenges and Solutions for Fast Remote Persistent Memory Access
Anuj Kalia, Michael Kaminsky, and David G. Andersen
Best Paper Award.

USENIX ATC 2020 — Lightweight Preemptible Functions
Sol Boucher, **Anuj Kalia**, Michael Kaminsky, and David G. Andersen.

USENIX NSDI 2019 — Datacenter RPCs can be General and Fast
Anuj Kalia, Michael Kaminsky, and David G. Andersen
Best Paper Award. Appears as an invited article in USENIX ;login:.

USENIX ATC 2018, short — Putting the "Micro" Back in Microservice
Sol Boucher, **Anuj Kalia**, Michael Kaminsky, and David G. Andersen.

USENIX OSDI 2016 — FaSST: Fast, Scalable, and Simple Distributed Transactions with Two-Sided (RDMA) Datagram RPCs
Anuj Kalia, Michael Kaminsky, and David G. Andersen

USENIX ATC 2016 — Design Guidelines for High Performance RDMA Systems
Anuj Kalia, Michael Kaminsky, David G. Andersen
Best Student Paper Award. Appears as an invited article in USENIX ;login:.

IEEE ISCA 2015 — Architecting to Achieve a Billion RPS Throughput on a Single Key-Value Store Server Platform
Sheng Li, Hyeontaek Lim, Victor Lee, Jung Ho Ahn, **Anuj Kalia**, Michael Kaminsky, David Andersen, Seongil O, Sukhan Lee, Pradeep Dubey

USENIX NSDI 2015 — Raising the Bar for Using GPUs in Software Packet Processing
Anuj Kalia, Dong Zhou, Michael Kaminsky, David G. Andersen

ACM SIGCOMM 2014 — Using RDMA Efficiently for Key-Value Services
Anuj Kalia, Michael Kaminsky, David G. Andersen

Journal publications

IEEE MICRO Top Picks, 2016 — Achieving One Billion Key-Value Requests per Second on a Single Server
Sheng Li, Hyeontaek Lim, Victor Lee, Jung Ho Ahn, **Anuj Kalia**, Michael Kaminsky, David Andersen, Seongil O, Sukhan Lee, Pradeep Dubey

ACM TOCS, 2016 — Full-Stack Architecting to Achieve a Billion-Requests-Per-Second Throughput on a Single Key-Value Store Server Platform
Sheng Li, Hyeontaek Lim, Victor Lee, Jung Ho Ahn, **Anuj Kalia**, Michael Kaminsky, David Andersen, Seongil O, Sukhan Lee, Pradeep Dubey

Service

Program Committee — USENIX NSDI 2022, 2024; USENIX ATC 2021, 2022, 2023

External Review Committee — USENIX OSDI 2021

Artifact Co-chair — OSDI + ATC 2022

Awards and achievements

2020 — Best Paper award at ACM Symposium on Cloud Computing (SoCC) conference, 2020

2020 — Honorable Mention for the ACM SIGOPS Doctoral Dissertation Award

2020 — Carnegie Mellon University's Edmund M. Clarke Doctoral Dissertation Award

2019 — Best Paper award at USENIX Networked Systems Design and Implementation (NSDI) conference, 2019

2017—-2019 — Facebook PhD fellowship (approx 200,000 dollars), awarded to 12 students worldwide

2016 — Best Student Paper award at USENIX Annual Technical Conference (ATC), 2016

2016 — Paper selected to IEEE MICRO Top Picks, 2016

2016 — Paper invited to ACM Transactions on Computer Systems, 2016

2009–2013 — Dean's award for academic performance ($\sim$3 in class), in every semester at IIT-Delhi

2010, 2012 — OP Jindal Engineering and Management Scholarship, awarded to 1 student from each year at IIT-Delhi

2009 — Rank 24 in Indian Institute of Technology Joint Entrance Exam, among around 400,000 students