

Anuj Kalia

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Dear members of the hiring committee,

I am writing to apply for the position of Assistant Professor at your school. I am currently a final-year PhD student in the Computer Science Department at Carnegie Mellon University, advised by Prof. David Andersen. I plan to graduate in July 2019.

I am a computer systems researcher. My PhD research focuses on high-performance systems, primarily for datacenter networks. For these systems, I have investigated the relative utility of new, specialized hardware tuned to specific applications—RDMA NICs, FPGAs, GPUs, and programmable switches—in comparison to existing, general-purpose hardware. Somewhat surprisingly, my work shows that in many applications for which specialized hardware has been proposed, existing hardware can provide better or comparable performance. To show this result, I have tackled fundamental challenges in how to best use existing datacenter hardware for efficient networking. My work spans a wide range of computer systems problems, and has appeared in top venues in systems and networking research (SIGCOMM 2014, NSDI 2015, ATC 2016, OSDI 2016, and NSDI 2019). The distinguishing feature of my research, which constitutes a common thread in all my papers, is its focus on building a deeper understanding of the hardware through extensive experimentation. I have received a Best Student Paper award at USENIX ATC, and the Facebook PhD fellowship.

Given my background, I am excited to teach undergraduate courses on computer systems, computer networks, and distributed systems, as well as advanced graduate courses on distributed systems and datacenter networks.

I have attached my CV and statements. Please let me know if I should send anything else. Thank you for your consideration, and I look forward to hearing from you.

Sincerely,

Anuj Kalia