External Engagement Statement

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Throughout my PhD, I aim to do impactful work. As a result, my research has led to publications in premier systems conferences including OSDI, NSDI×3, SIGCOMM, SIGMOD, and VLDB. Some of my research has created a broad impact on industry practices:

- My Electrode and Dint projects on eBPF-based distributed protocol acceleration spark interest in big technology companies including Meta and Intel. They are more willing to deploy kernel-native solutions via eBPF/XDP, rather than DPDK-based kernel-bypass techniques which are hard to manage in production.
- My Carbink project paves the way for far memory to be practically usable in datacenters with failures being the norm. The Carbink prototype is implemented and evaluated atop Google's production infrastructure (e.g., networking stacks, threading stacks), showing the potential to be deployed in production environments. Carbink also results in a joint patent with Google.
- My PCAT project helps Facebook design their evolvable telemetry system to systematically handle frequent changes in production networks. PCAT introduces the change cube abstraction to track and confine changes, and drives many system upgrades inside Facebook. For example, as described in the PCAT paper, Facebook's new topology derivation service leverages change cubes to speed up the derivation process.