Pipeline and Hybrid Parallelism

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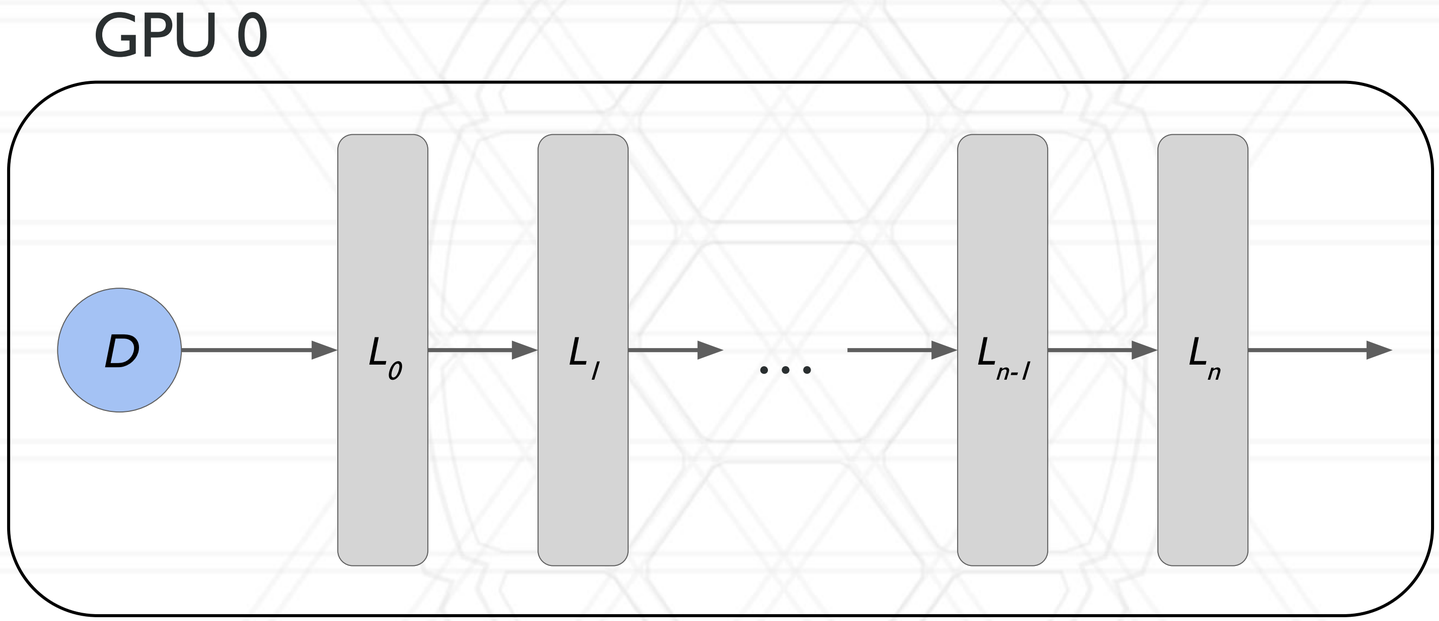
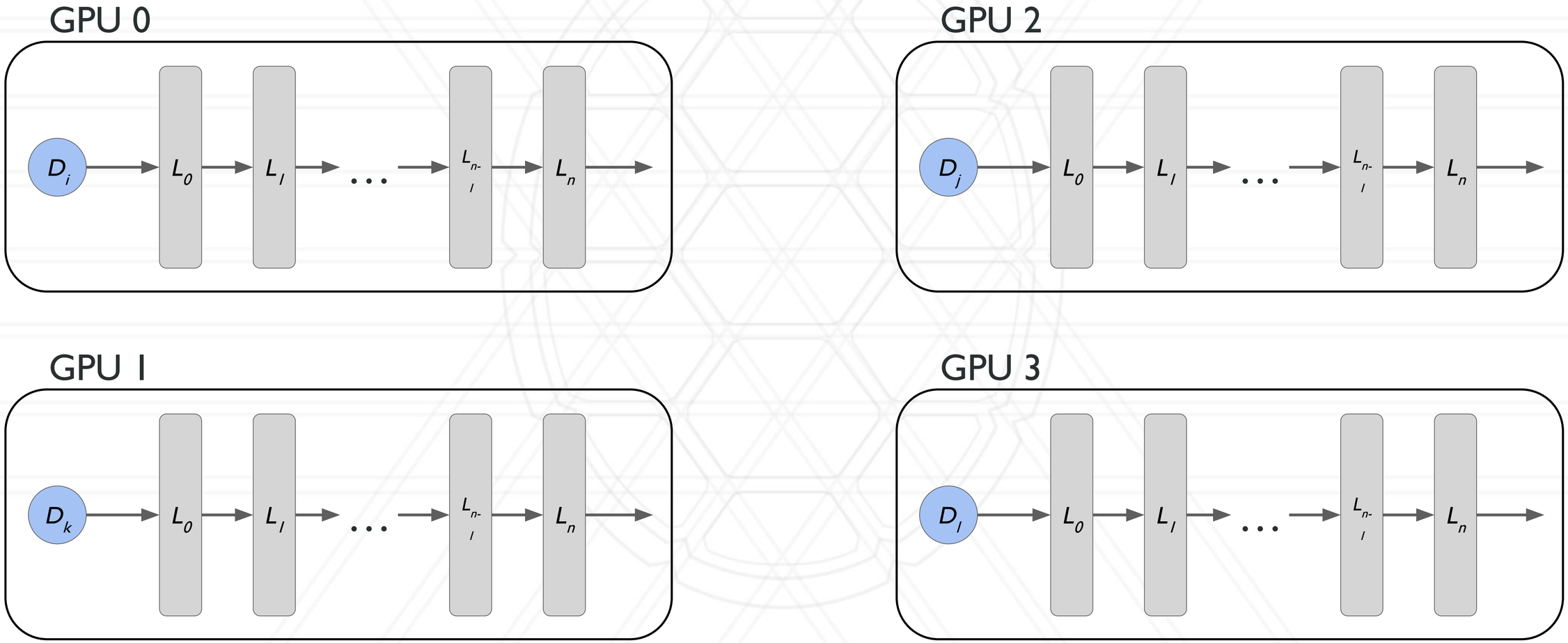
Announcements

- Project proposals and groups due Friday, March 7th
- Assignment 2 due March 14th (with extension to March 17th)

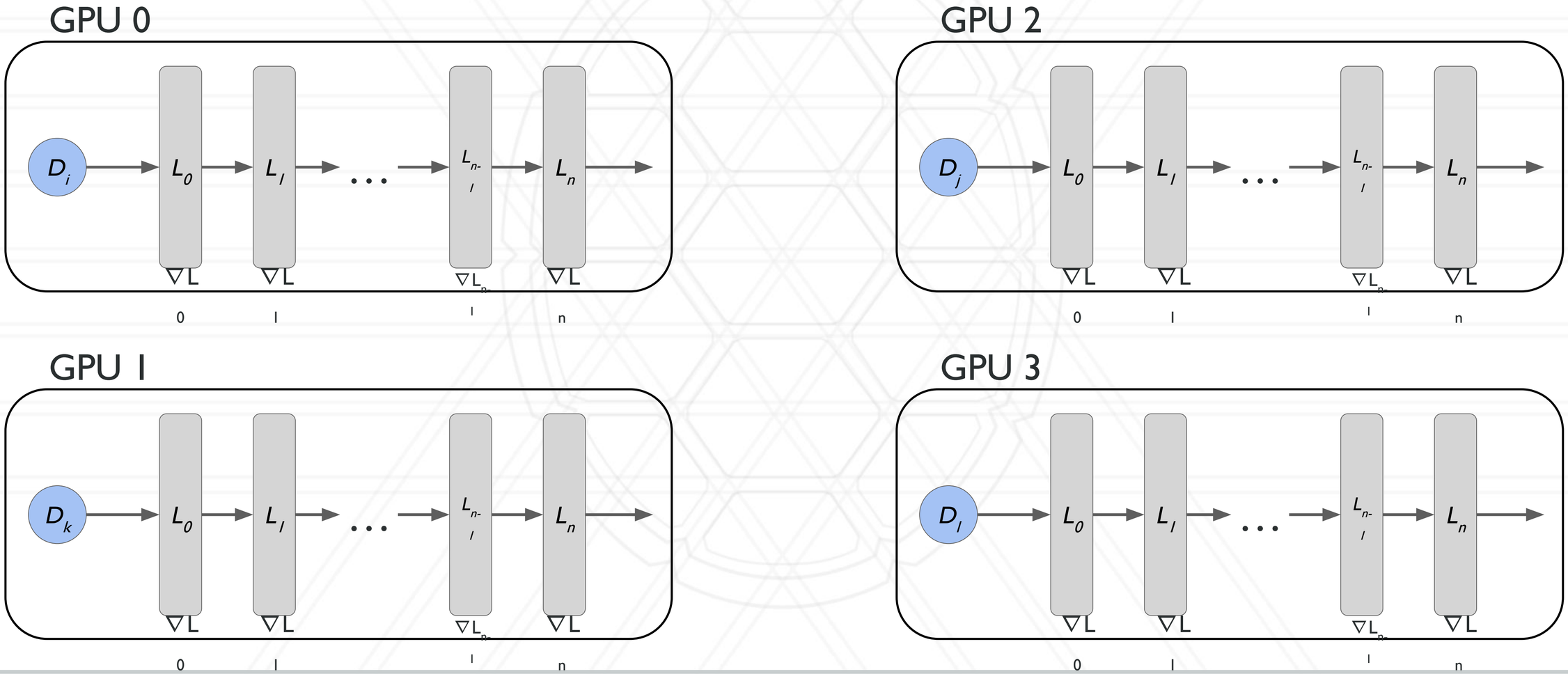
Sequential Training



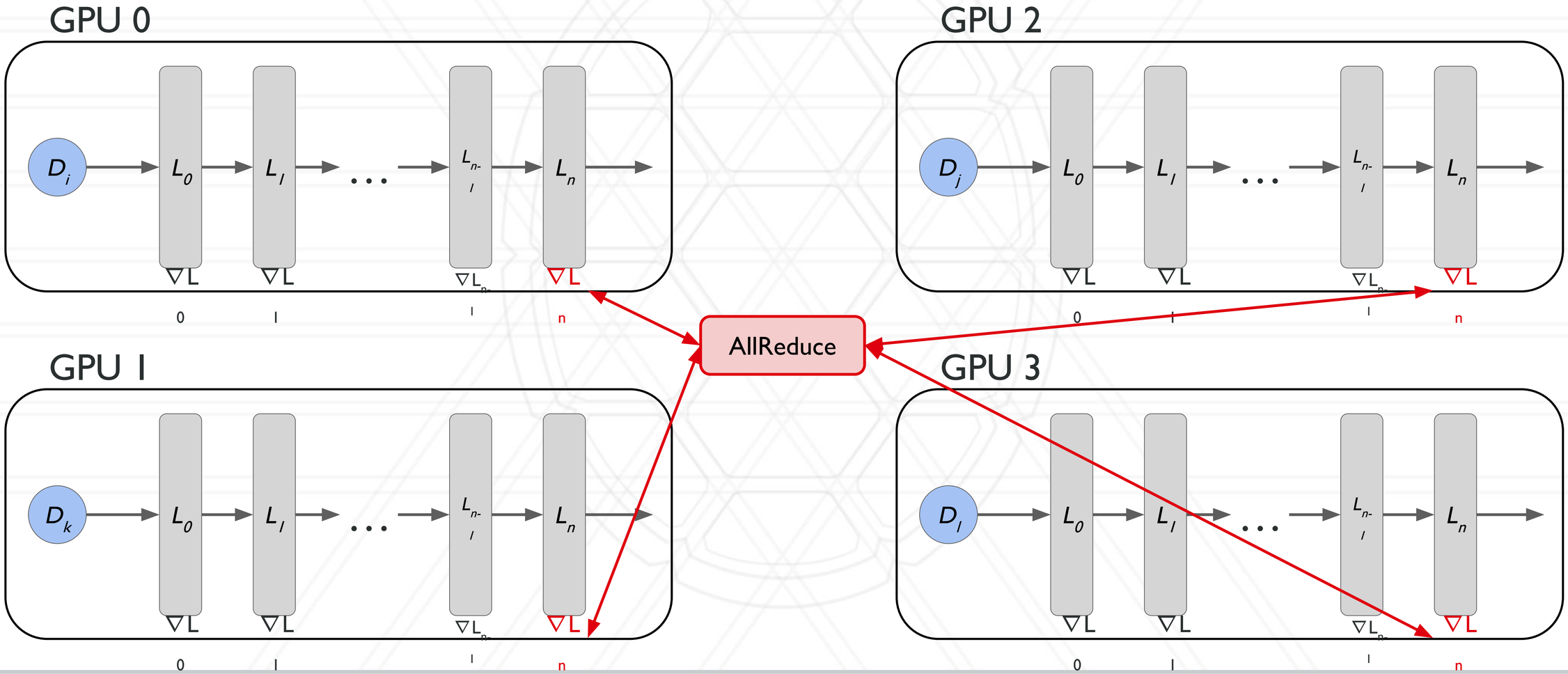
Data Parallel Training



Data Parallel Training



Data Parallel Training



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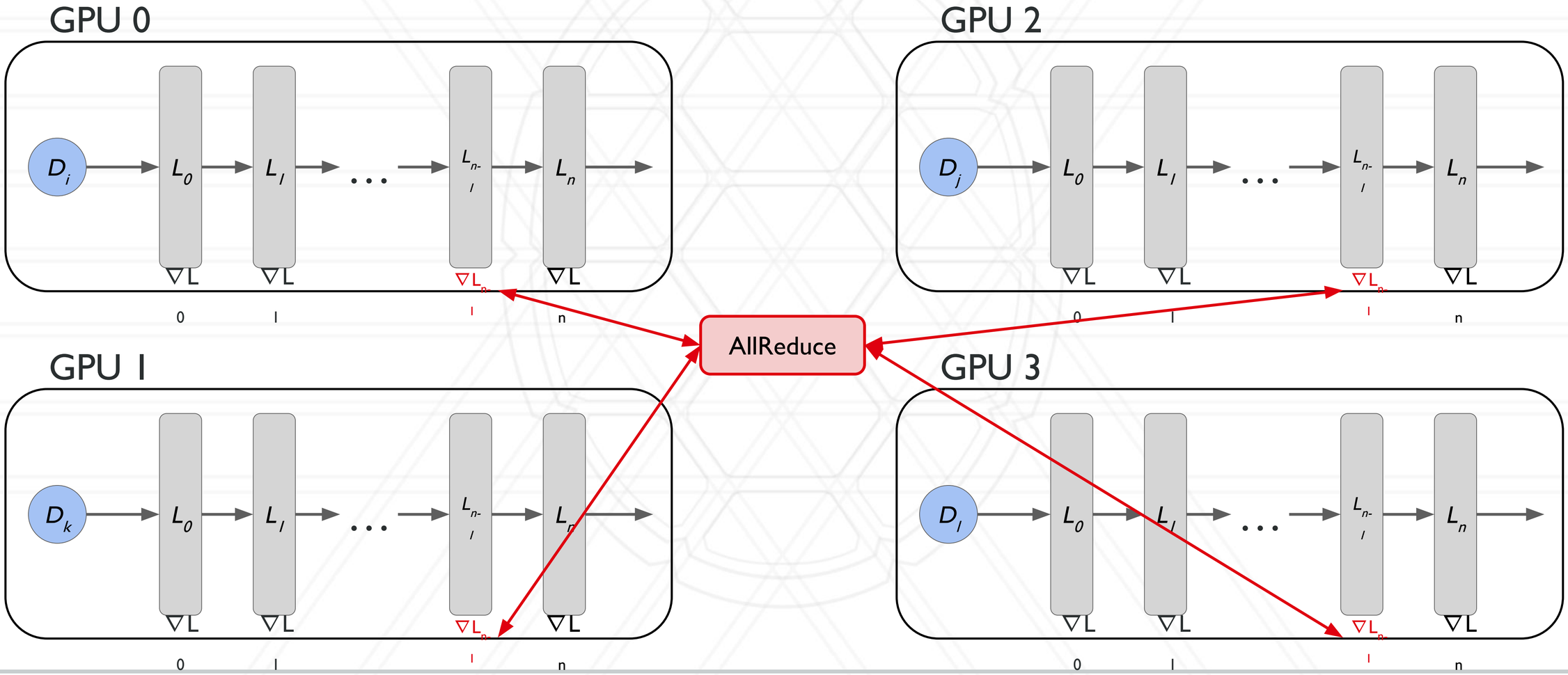

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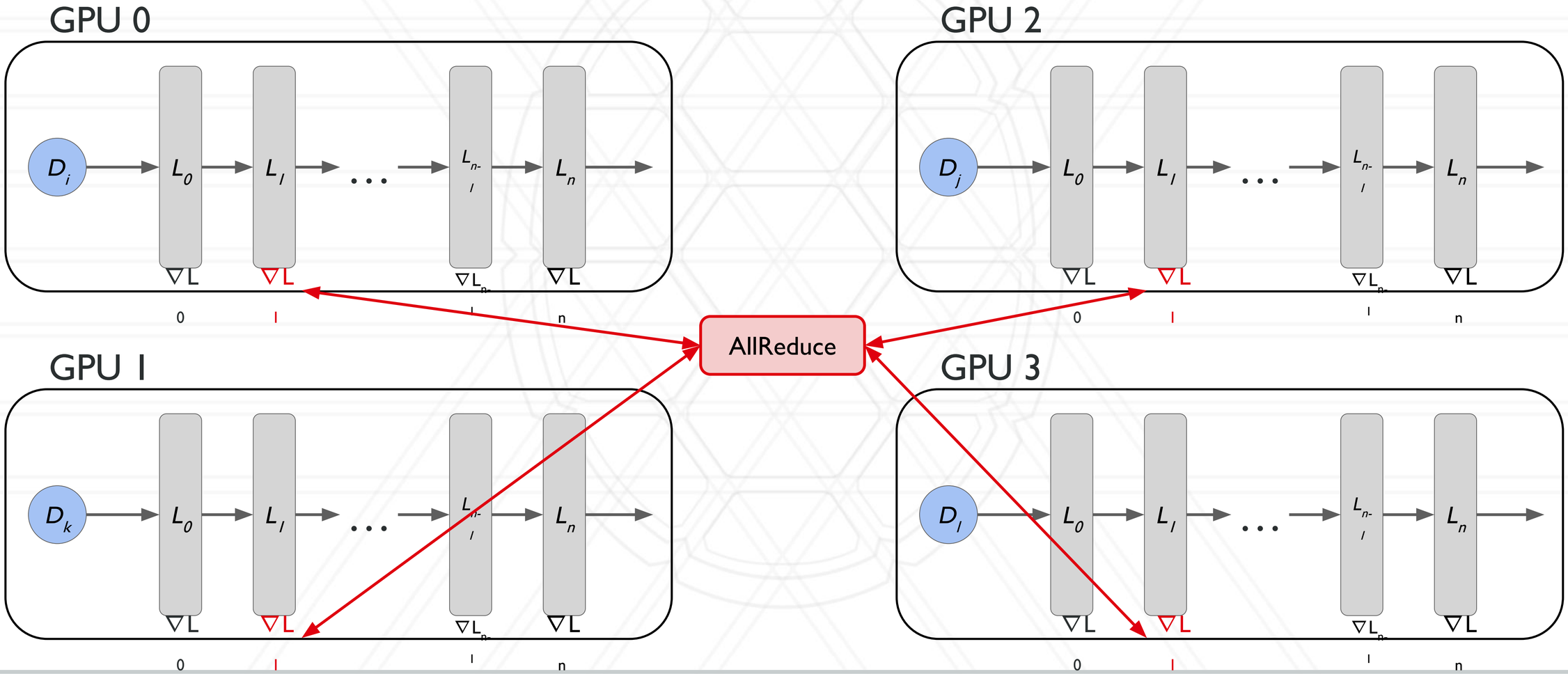
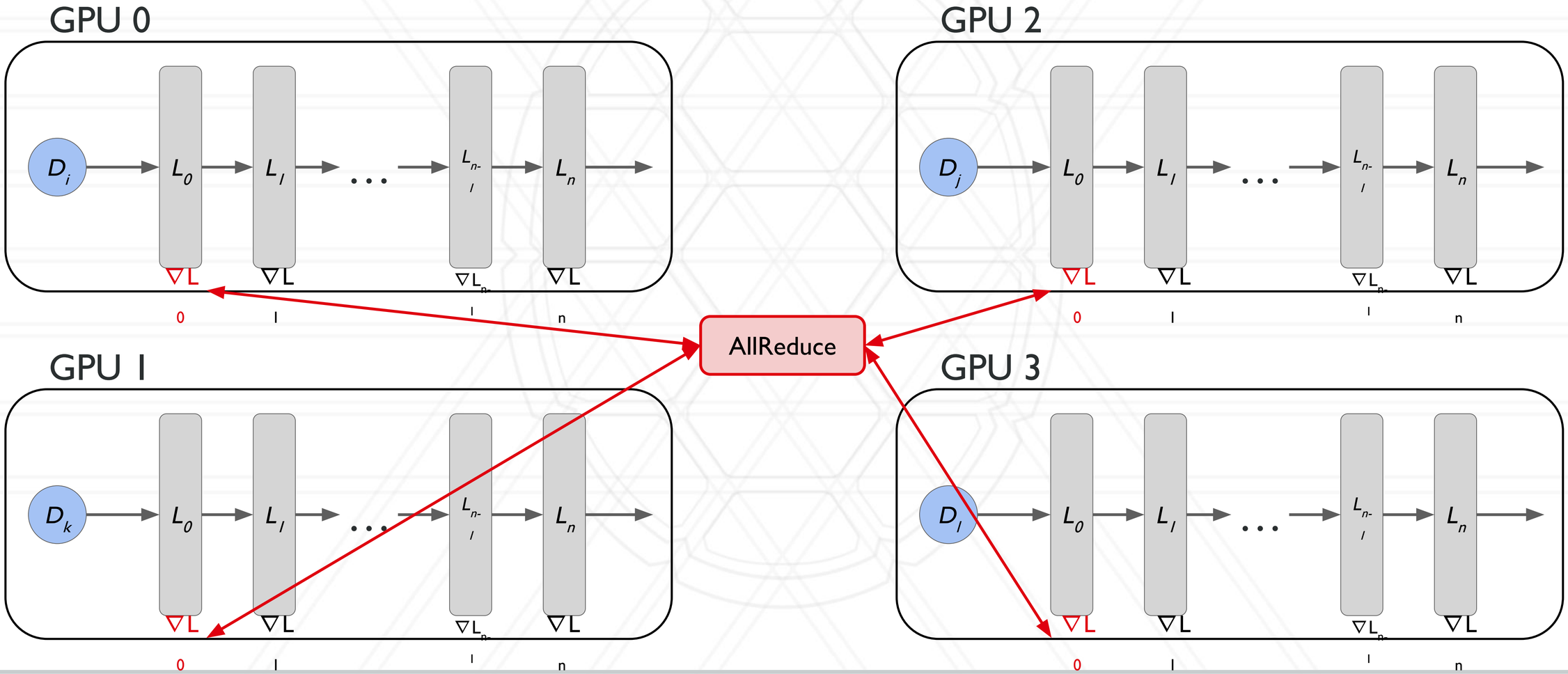
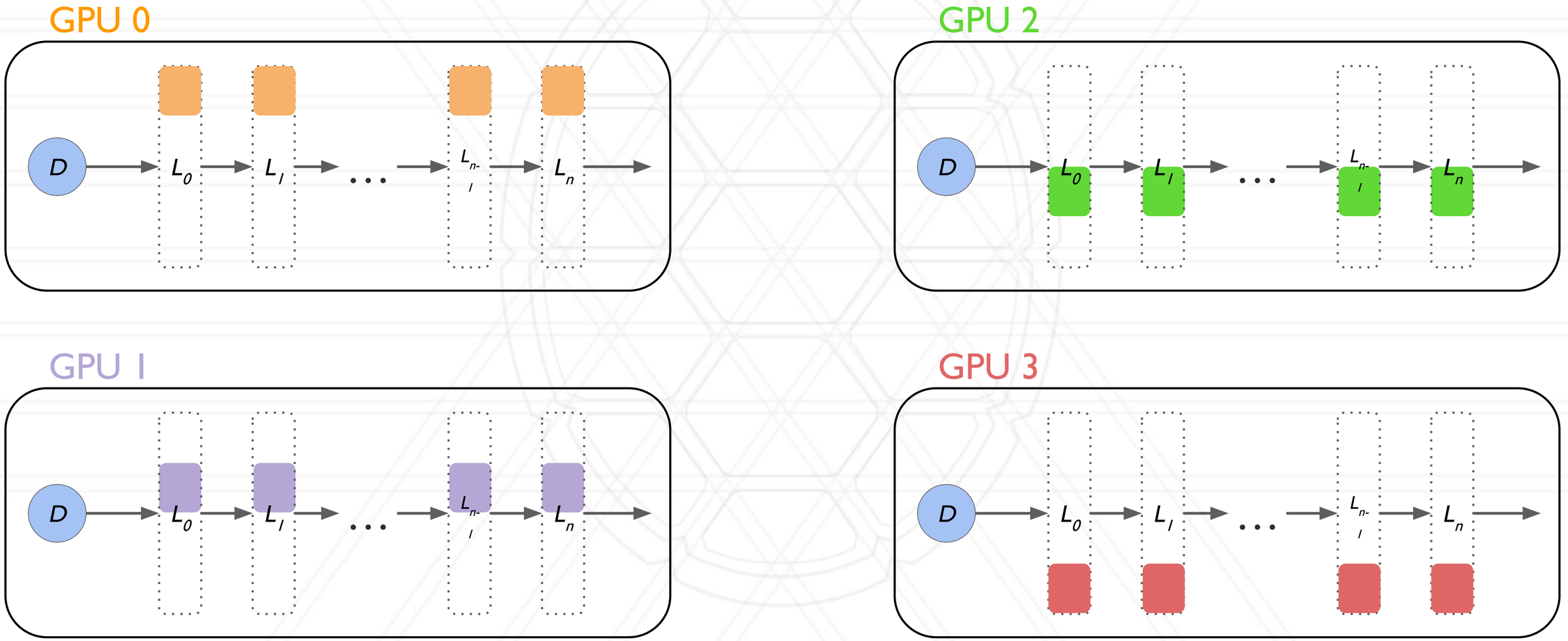


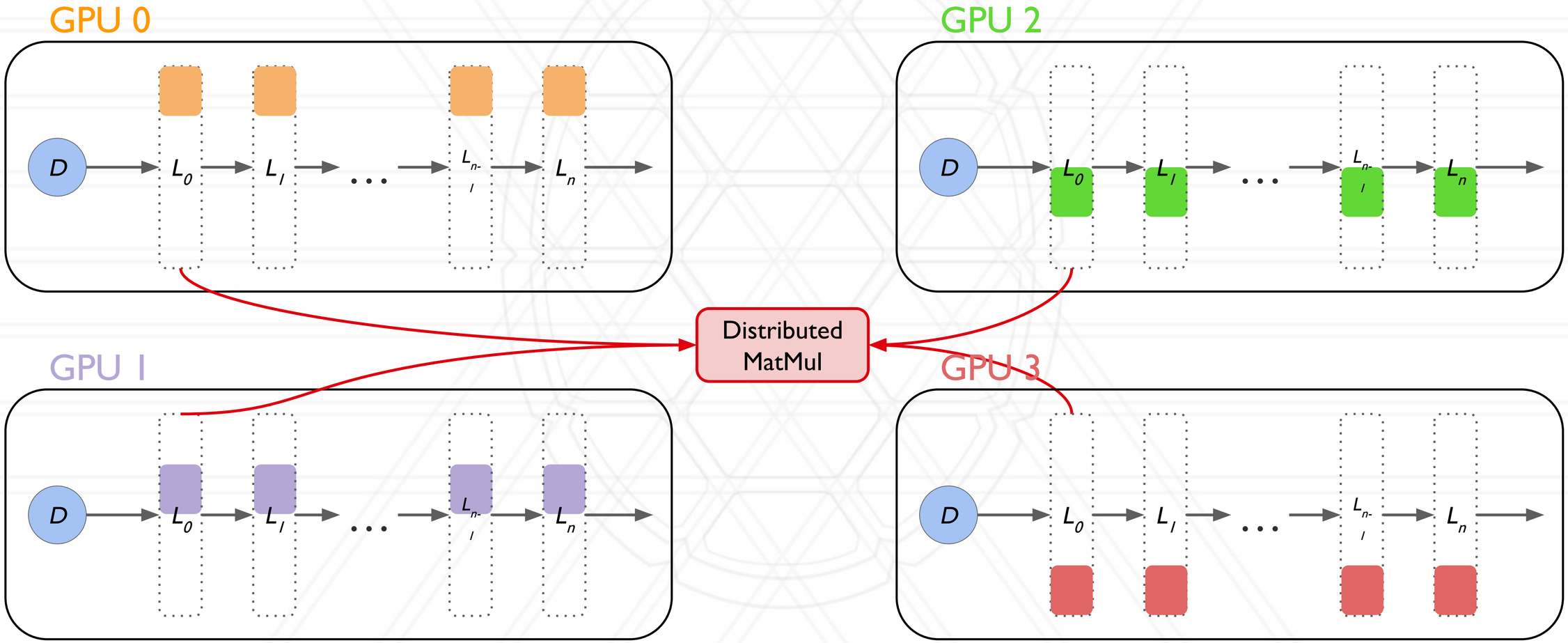
Data Parallel Training



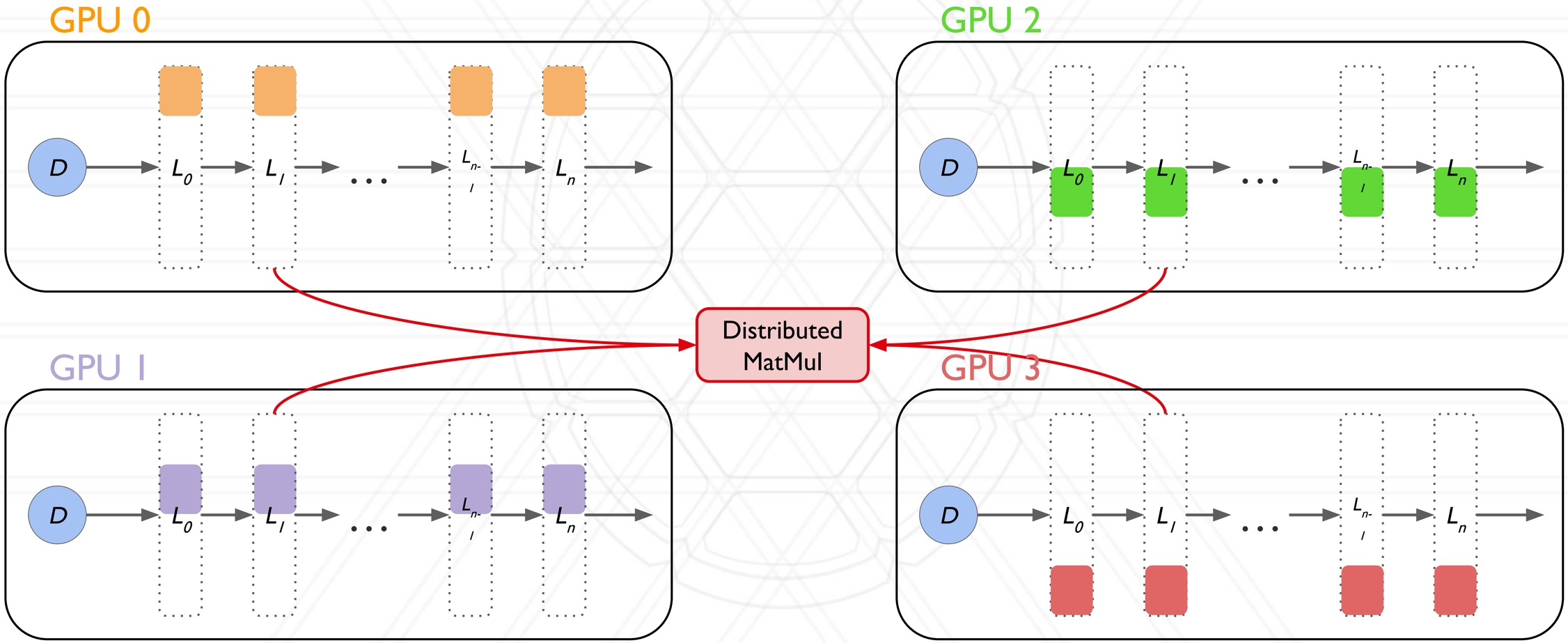
Tensor Parallel Training



Tensor Parallel Training



Tensor Parallel Training



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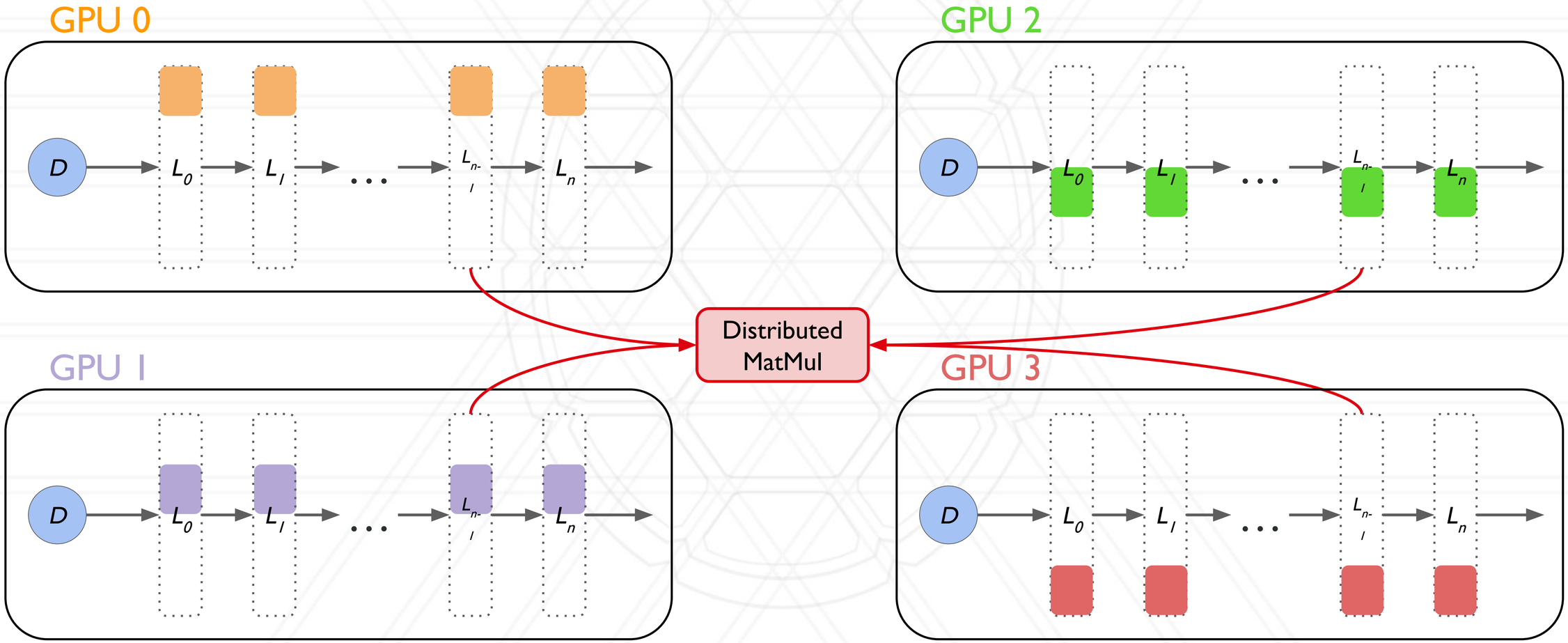
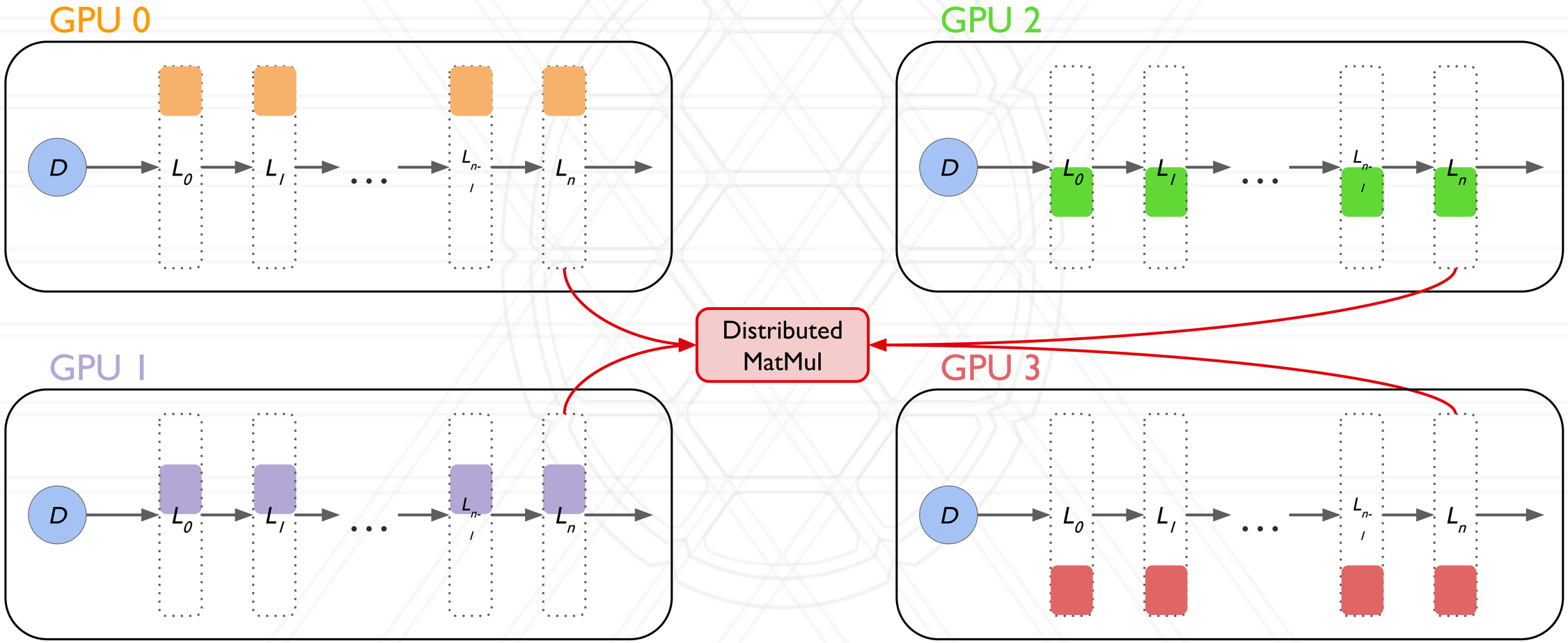
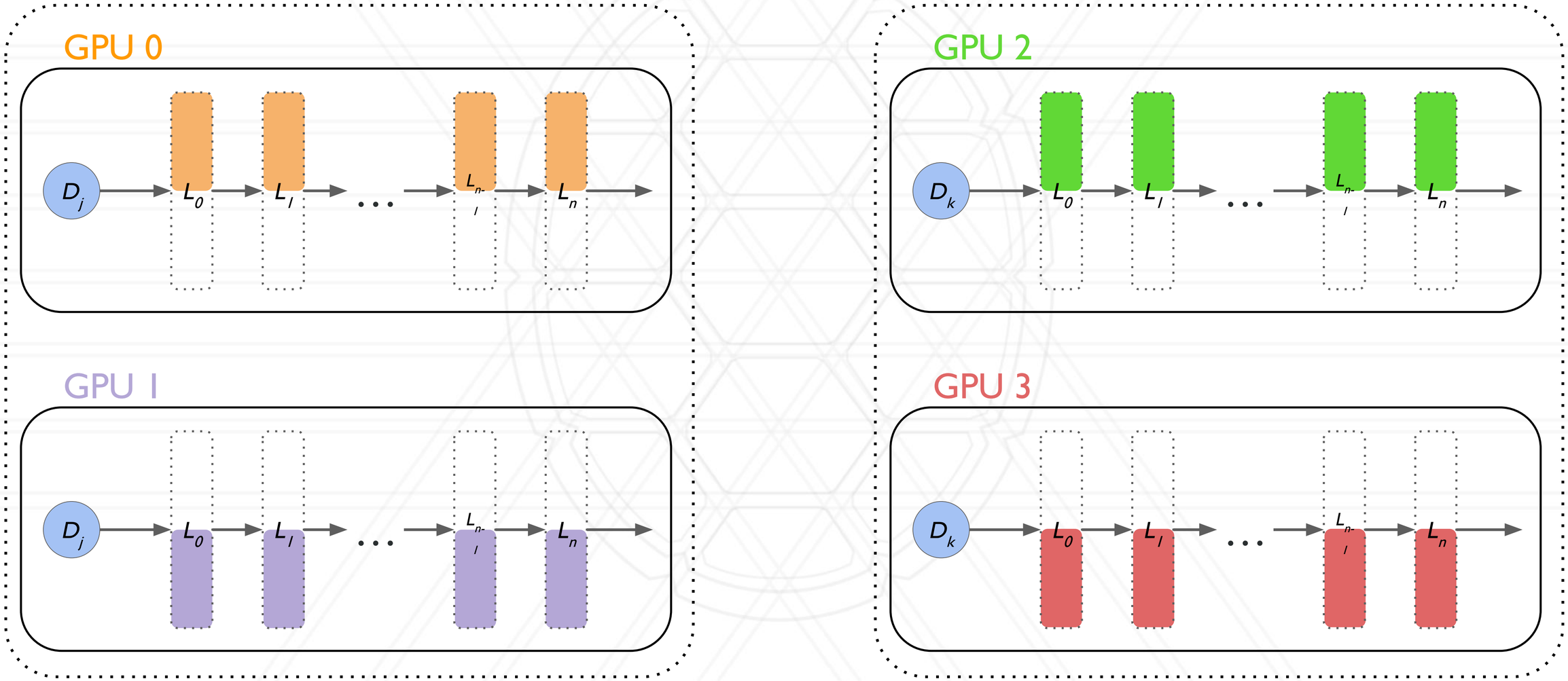


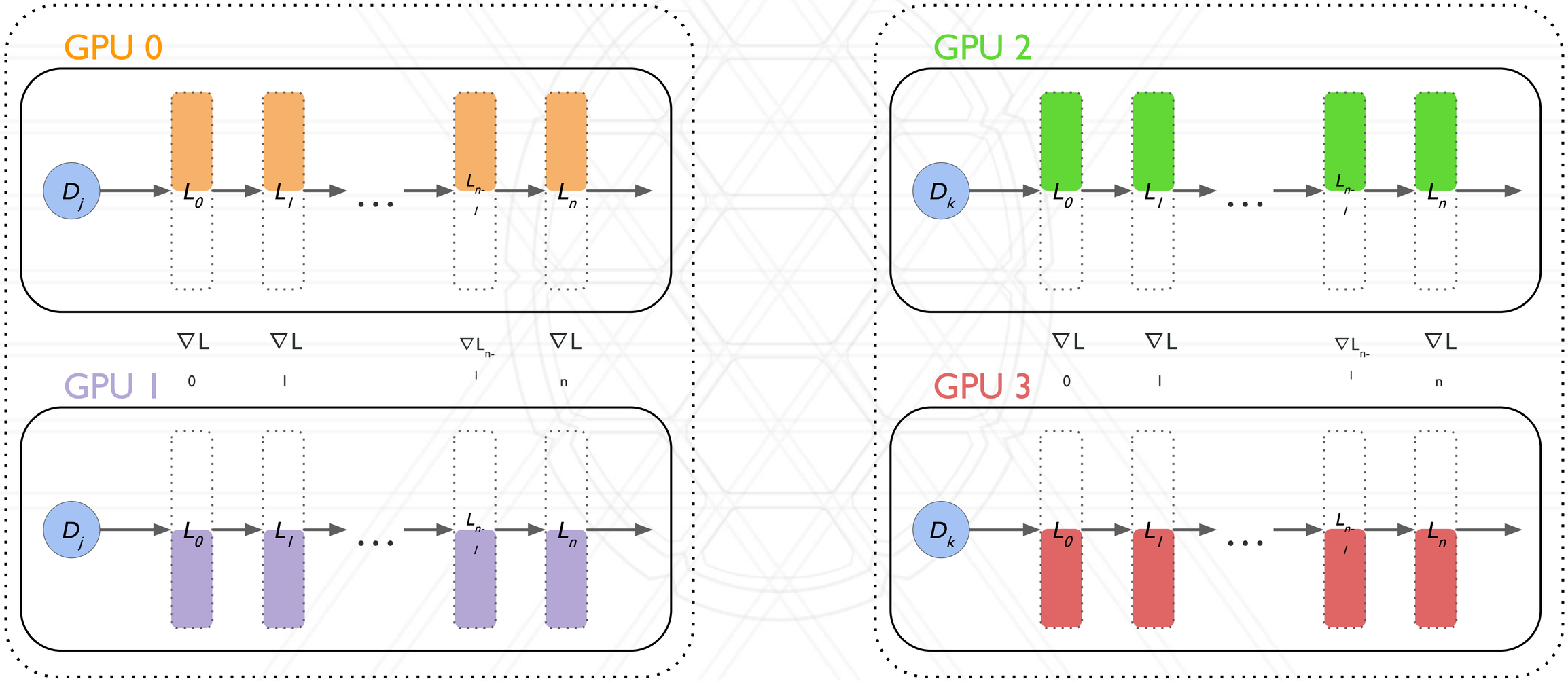
Tensor Parallel Training



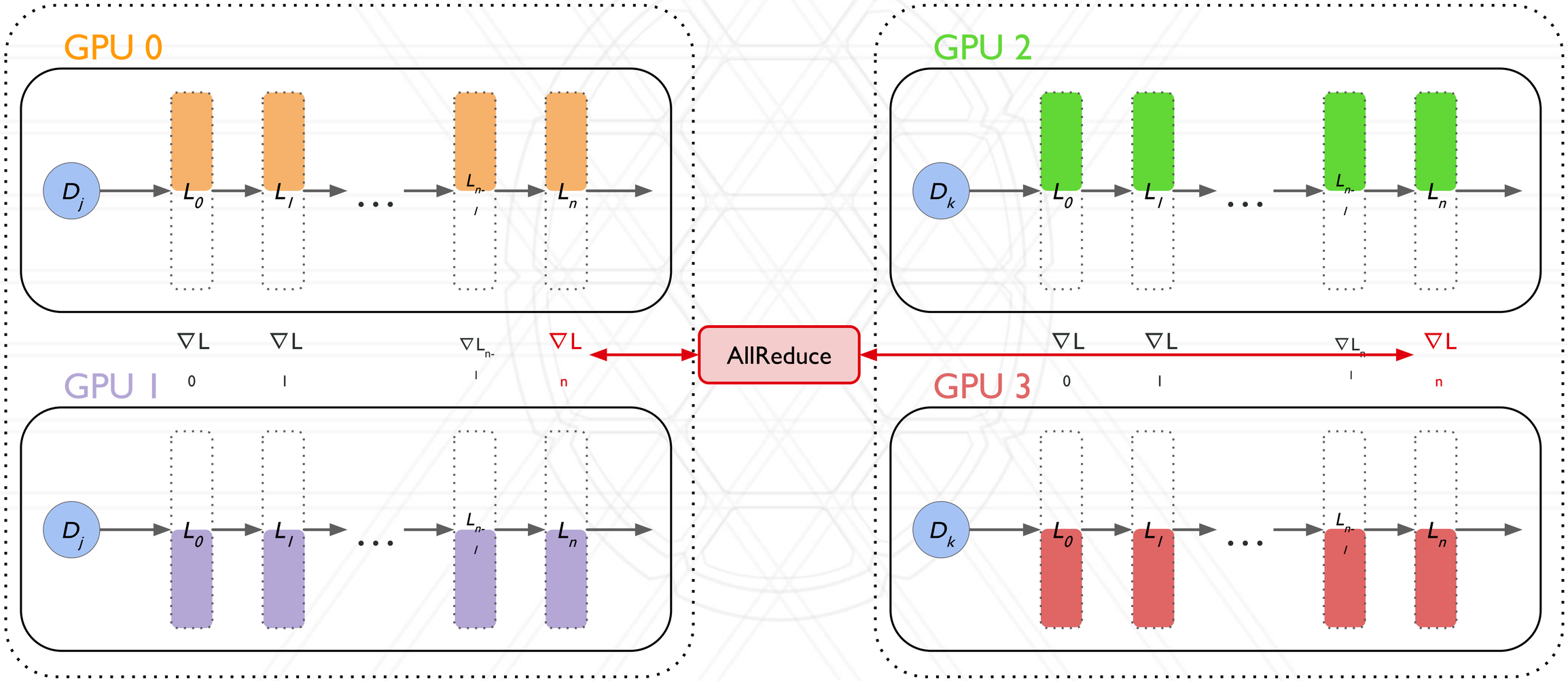
Tensor + Data Parallel Training



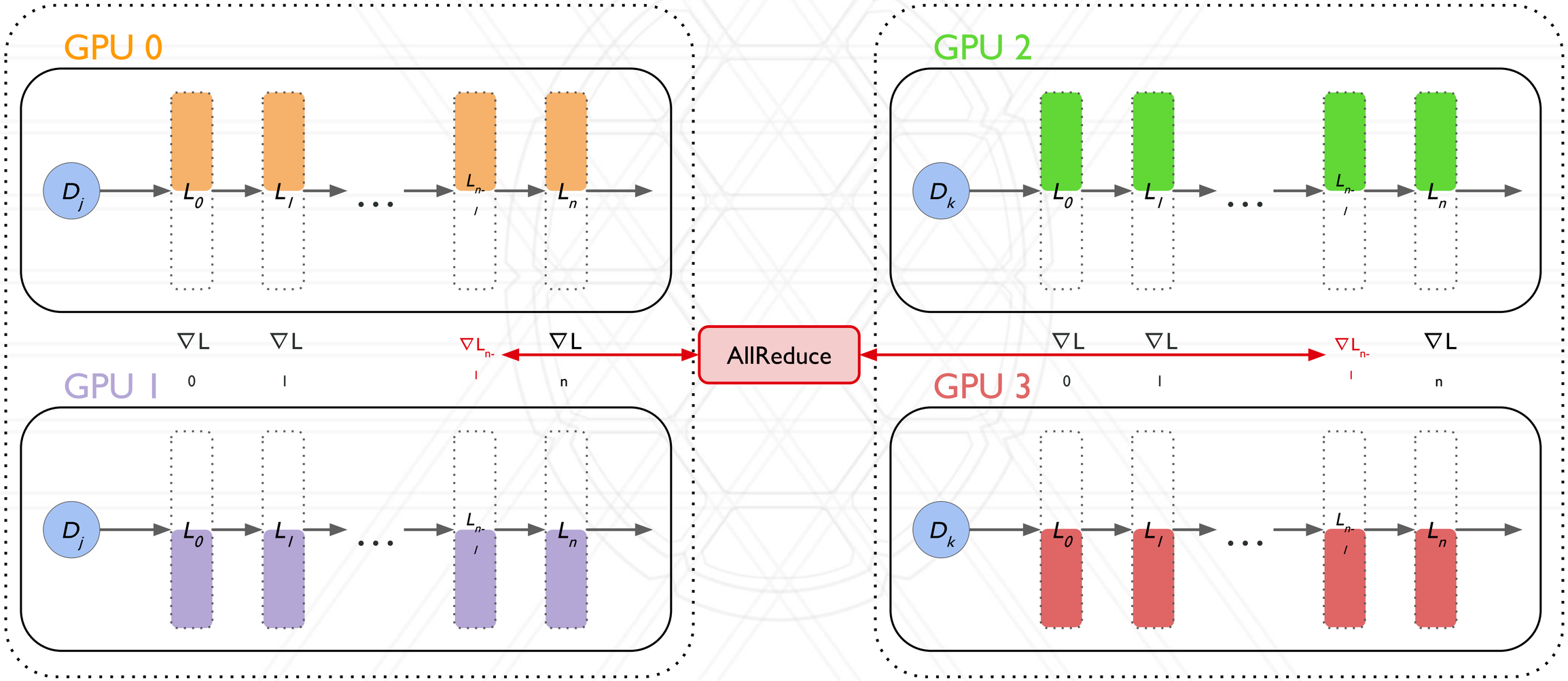
Tensor + Data Parallel Training



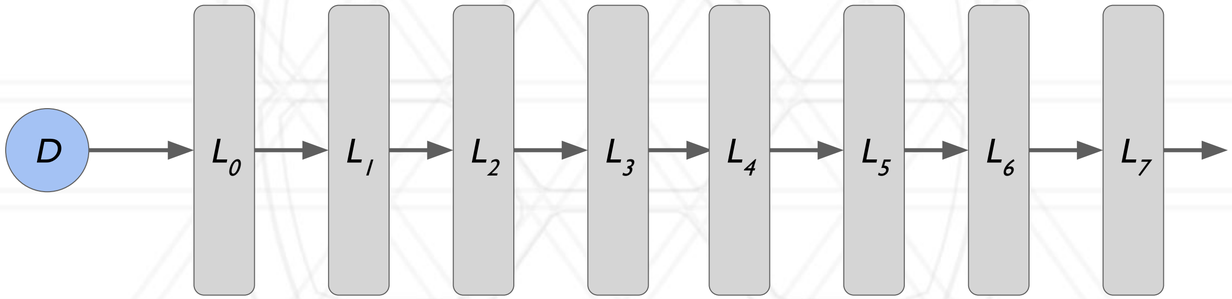
Tensor + Data Parallel Training



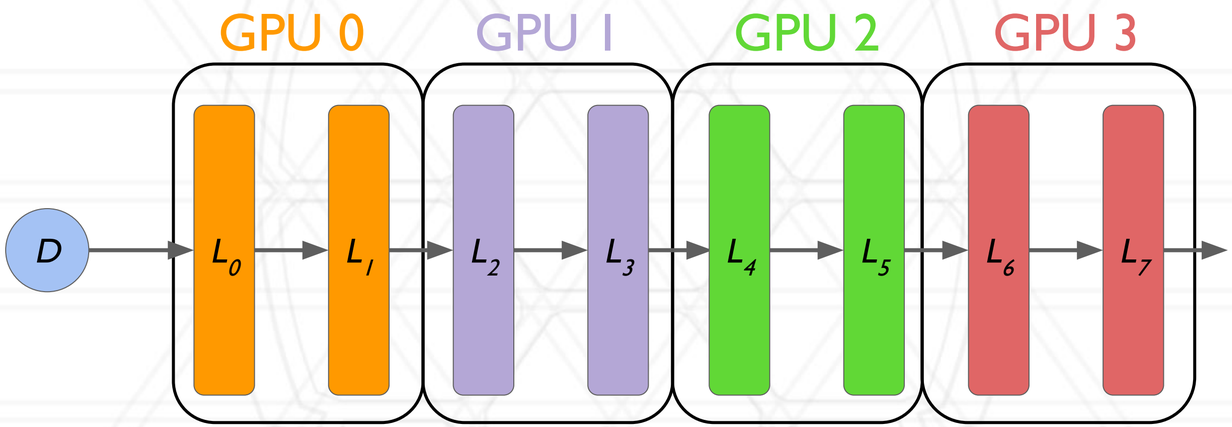
Tensor + Data Parallel Training



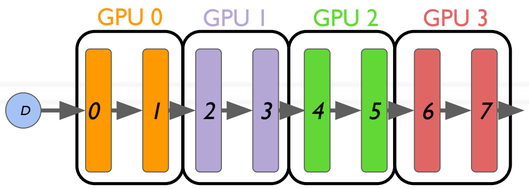
Pipeline Parallel Training



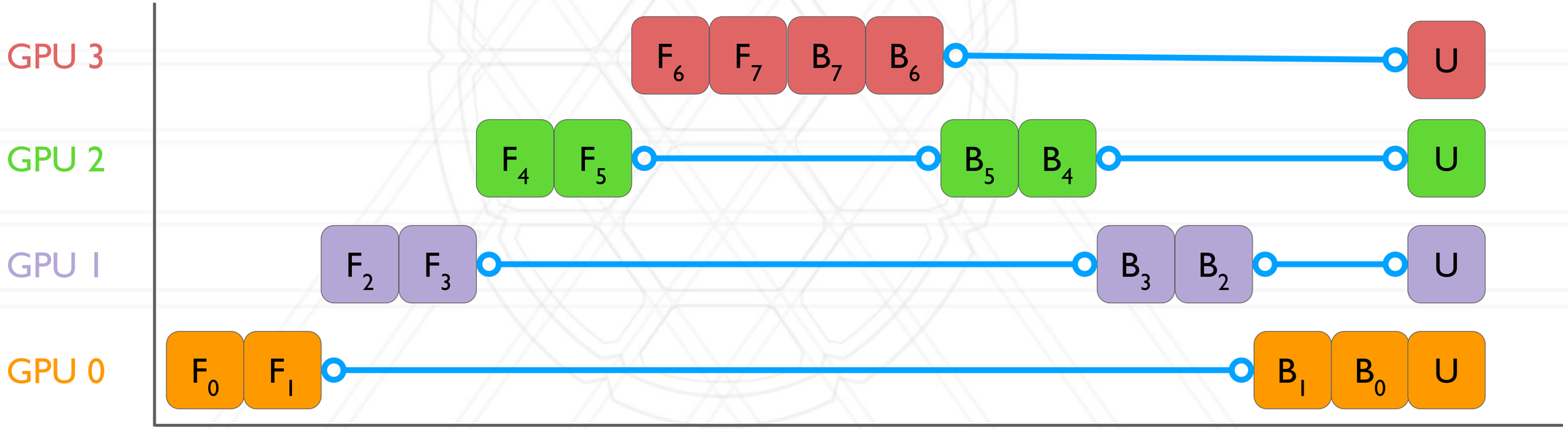
Pipeline Parallel Training



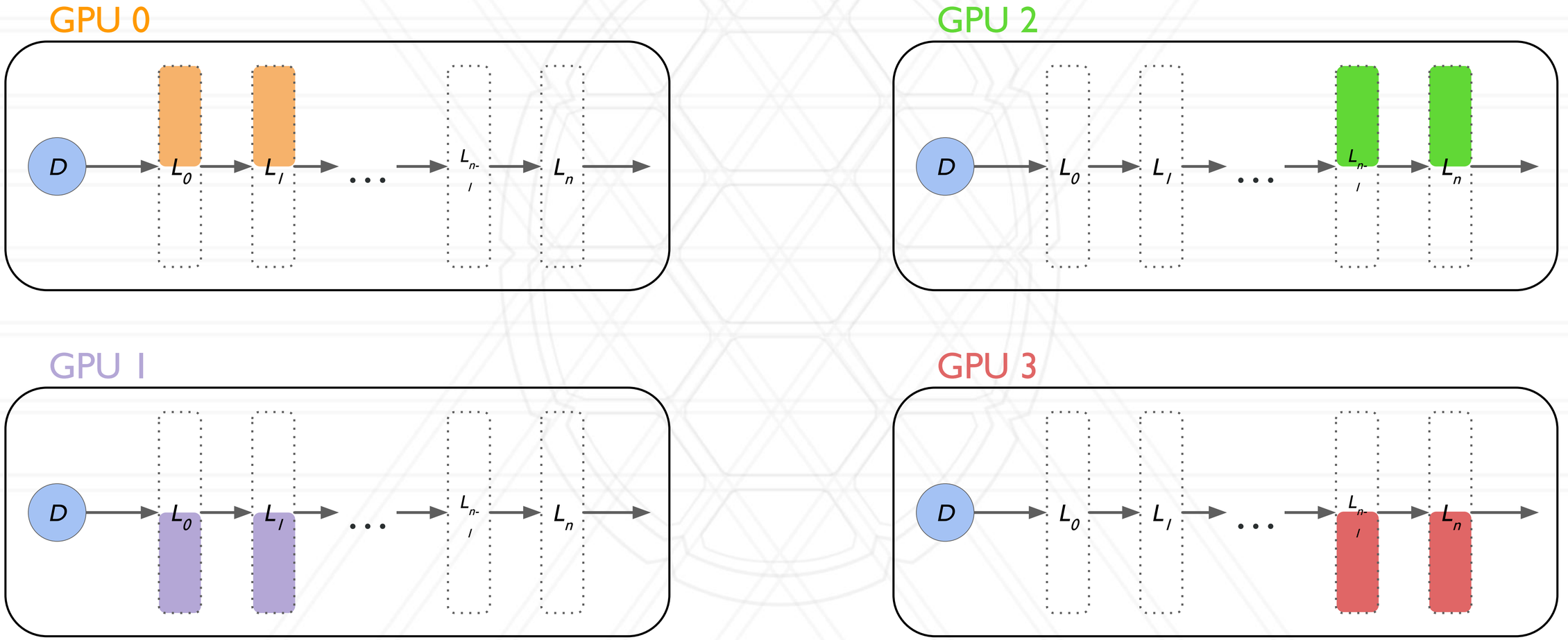
Pipeline Parallel Training



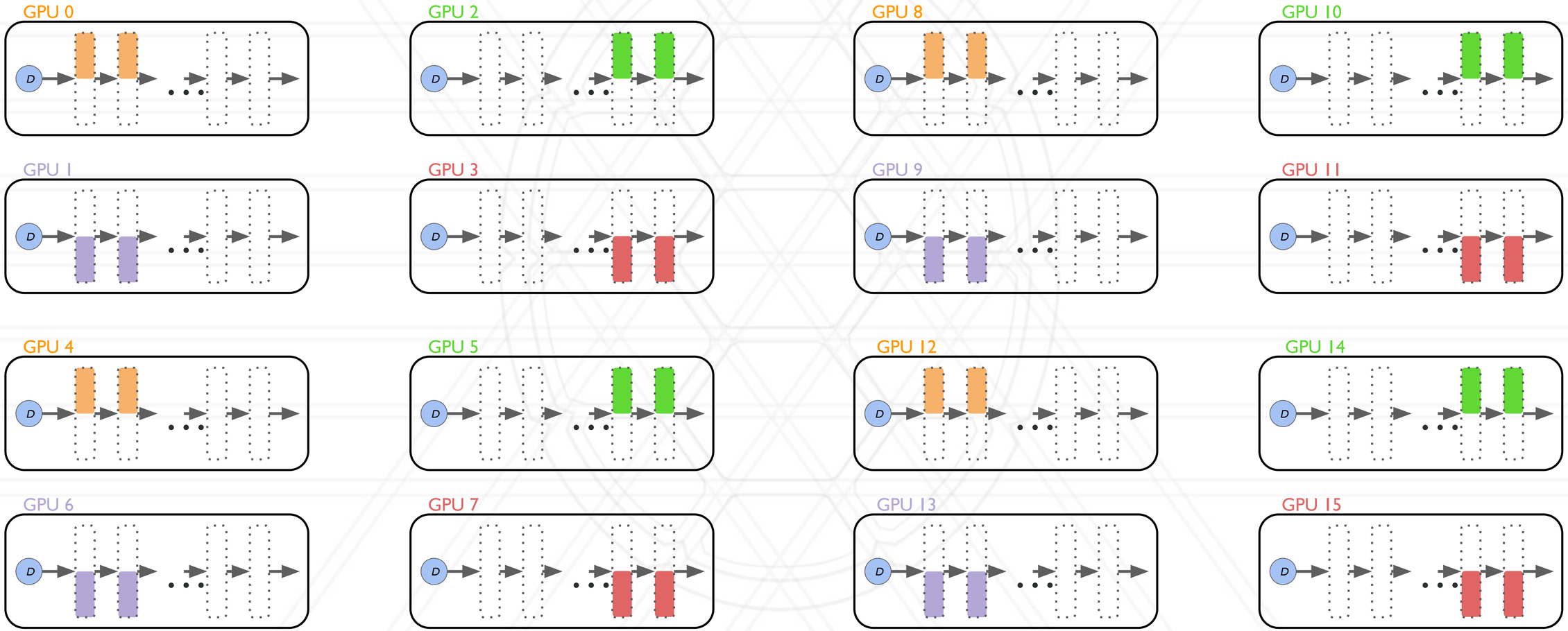
There's a lot of research into filling in these "bubbles"



Pipeline + Tensor Parallel Training



Pipeline + Tensor + Data Parallel Training



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