Can anything be done about worst case?

Recall that regardless of the “average” case, that if we expect mostly-sorted inputs, then the runtime would be bad.

Can we address the issue of a sorted list leading to \( n^2 \) runtime with the partitioning algorithm we are using?

- What if we randomly shuffled the data, then sorted?
- What if we randomly select the pivot value?

What if we then see whether the pivot is good and, if not, choose another random pivot?

- What if we did MoMs Median finding in the Partition call?