Summary

- Get an idea of overall application behavior with **NSight Systems**
  - Identify kernels for further analysis
  - Can use NVTX to correlate algorithm to CPU and GPU activities
- Use **NSight Compute** for in-depth analysis of individual kernels
  - Track the effects of code changes using Baselines
  - Use the automated suggestions to identify bottlenecks
- Profile, Analyze, Experiment/test ⟶ repeat

Additional resources

- Official documentation (NVidia):
  - https://docs.nvidia.com/nsight-systems/
  - https://docs.nvidia.com/nsight-compute/NsightCompute/index.html
- Blog posts (NVidia):
  - https://devblogs.nvidia.com/nsight-systems-exposes-gpu-optimization/
  - https://devblogs.nvidia.com/transitioning-nsight-systems-nvidia-visual-profiler-nvprof/
- GTC 2018 NSight Systems talk:
  - http://on-demand.gputechconf.com/gtc/2018/video/S8718/
- Blue Waters tutorials:
  - NSight Systems
    - https://www.youtube.com/watch?v=WA8C48FJi3c
    - https://bluewaters.ncsa.illinois.edu/liferay-content/document-library/content/NVIDIA%20Nsight%20Systems%20Overview%20by%20Sneha%20Kottapalli.pdf
  - NSight Compute
    - https://www.youtube.com/watch?v=nYSdsJE2zMs