

# Nonnegative Matrix Factorisation

Dan Jacobellis, Tyler Masthay

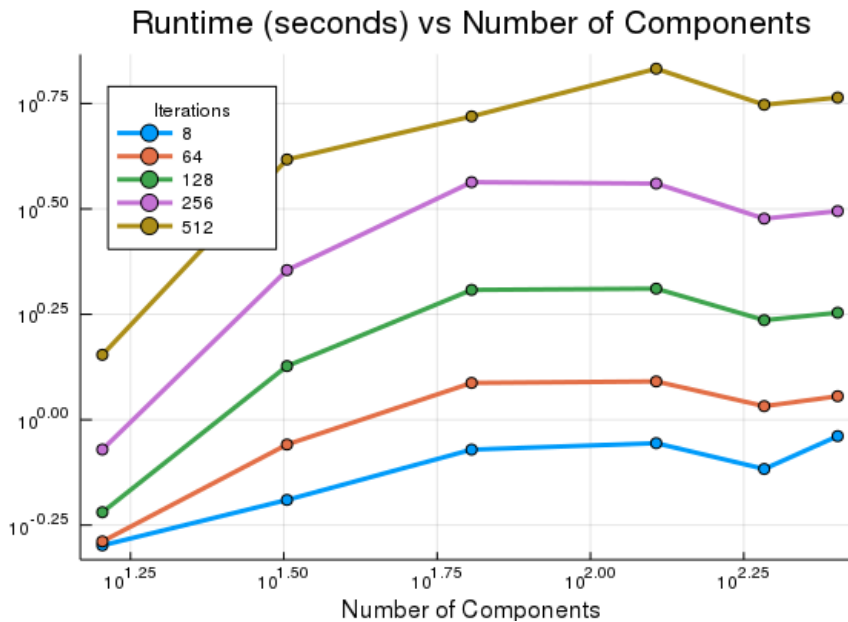
## Completed work

- Implemented the multiplicative update NMF algorithm on a GPU using Julia bindings to CUDA.
- Performed timing benchmarks for CPU and GPU implementation
- Examined required number of iterations for acceptable transcription (no more than 256)
- Used Nvidia profiler to debug an issue that was causing unnecessary memory copies between the device and host, improving runspeed by factor of 10.

## TODO

- Test performance as function of frame size
- compare performance with MATLAB and sci-kit learn implementations

## GPU



## CPU

