

Estimating the mixing proportions π

- ▶ MLE is a common statistical approach
- ▶ given we have some densities, say $\text{Normal}(\mu, \sigma)$, and some data, we choose the μ and σ that maximize the joint probability, or likelihood, of the data we observe.
- ▶ Typically the log of the likelihood is used because it's easier to work with.
- ▶ In our case, this means that $\hat{\pi}$, or the estimate of the mixing proportions, is the argmax of the log likelihood.