1. Membership Inference

Given f(data), infer if $x \in data$ (e.g., f is aggregation)

[HSR+08, WLW+09] for genomic data

[Pyrgelis et al., NDSS'18] for mobility data

Membership inference is a very active research area, not only in machine learning

Well-understood problem (besides leakage)

Use it to establish wrongdoing

Or to assess protection, e.g., with differentially private noise

MEMBERSHIP INFERENCE

DOES NOT COME FROM ML



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2. Inferring Class Representatives