

Privacy-Preserving AIS for Network Security

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Change of Topic

- Could not find data with similar attributes for similar diseases
- Previous papers only use single disease data or dissimilar data

New Problem Statement

- Recall: LISYS [1] is a popular network security AIS for LAN
- Each node has its own set of detectors
- Gaps -
 - Assumes a broadcast network to broadcast SYN packets
 - Privacy of connections to nodes not maintained
 - Detectors are not mobile

- Privacy-preserving shared immune system
- Connections to individual nodes not known by others
- However, this information is secret-shared for training



Steven A Hofmeyr and Stephanie Forrest.

Architecture for an artificial immune system.

Evolutionary computation, 8(4):443–473, 2000.