

# Swarm Learning

---

Secure peer-to-peer synchronization mechanism using HMAC signatures.

## Features

- HMAC-signed memory sharing
- Adaptive mixing based on novelty and trust
- Security hardening against malicious peers

## Example

```
class SecureSwarmNode:
def init(self, node_id, secret_key):
self.id = node_id
self.dml = SafeSelfModifyingDML()
self.peers = []
self.key = secret_key.encode()
```