Model 2: Address-Based Classification

Ethereum Addresses → **Alchemy API Transfer History** → **Address Feature Extraction**

Label Sources:

- Etherscan labels
- OFAC sanctions list
- Tornado Cash interactions
- Known exploit addresses

Address Features:
- Transaction count
- Unique counterparties
- Time span of activity
- Value statistics
- Token diversity
- Gas usage patterns

ML Model (RF/XGB)

Multi-Class Prediction

Non-Malicious | **Phishing** | **Exploit** | **Sanctioned** | **Tornado**