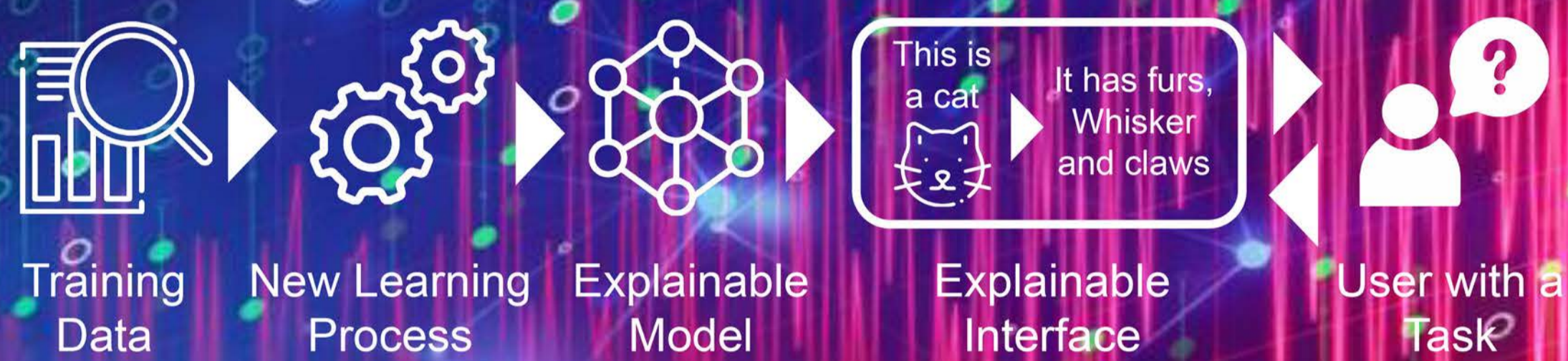


# Explainable Artificial Intelligence with Self Adaptive Fuzzy Inference System

Student: Delphine Lee Han Wei

Supervisor: Assoc Professor Quek Hiok Chai

## The future of truly intelligent artificial intelligence



The project presents a novel explanation interface for interactive visualization of states, reasoning and actions for self-adaptive fuzzy inference system (SAFIN) and demonstrate the utility of the explanation with via extracting the causal statement of the model prediction outcome of transient shift in the financial market.



### Project Focus

#### Interpretability

Interpretability refers to the mapping of abstract concept into human-understandable presentation. It is achieved via design and labelling of fuzzy clusters and color differentiation of state and action of fuzzy cluster during model training stage.

#### Explainability

Explainability refers to the set of features of interpretable domain that contributed for a given example to produce the final decision. Fuzzy clusters and rules are translated into explainable semantic language to further increase the model explainability.

### Interface Architecture

