Dhan AIML overview

- Since Dhan's ML models hasn't been published in a catalogue, I am going out on a limb with the ML models they have used. I am including all the ML models that general stock brokerage applications use, and what I understood from the available features.

▼ AIML that Dhan uses and how to beat

- For personalization, they might be using collaborative filtering, content based scoring using meta data, sequencing models (LSTM/Teansfoemer) for reccomendation, and simple production ensembles.
    - To beat them, we can rank them, apply contextualization,.
- For portfolio analysis, GB trees, parametric models such as Monte Carlo for stress testing, and GARCH for risk analysis
    - Instead of predicting returns blindly, we can build probabilistic forecasts and its mathematics. Methods include GARCH, Deep probabilistic models, Gaussian or similar process.
- For news, transfoemer based encoders such as BERT and it's sets.
    - We can implement corporate events and estimate the impact. Fine tuning sentiment, along with stance and causality models
- For churning, log reg, XGBoost as base for behavioral features, and survival analysis.
    - We can quantify uncertainity using Bayesian Neural Networks, or deep ensembles. Add explainability using SHAP.
- For fraud anomaly detection, they are using rule + statistical anomaly detection (IF, autoencoders), and graphs for analytics and collusion detection.
    - GNN.