Predicting impact of Incidents

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What?

- Predicting Impact of Incidents
  - Prediction after Incident Creation/Update/Reopening
- Sort Incidents by the predicted Impact
- Prioritize Incidents with high Impact
  - First resolve high Impact Incidents, then medium, then low Impact ones

How?

- Rule-based solution
  - Inputs
    - Previous impact
  - Prediction
    - Previous impact or
    - Medium priority
  - Very easy to implement

- Machine Learning model
  - Inputs
    - Previous impact
      - Very important
    - Data provided on Incident creation/reopening
      - Important: *opened_by*, *ID_caller*, *updated_by*, *user_symptom*, *category_ID*
  - Output
    - Score between 1 and 3
      - 1 = highest priority, 3 = lowest
  - Performance
    - 85% of High impact Incidents are in top 10% of Incidents ordered by the model
      - If IT Teams are swamped, they can solve only 10% of Incidents and most High priority will be still solved
  - Fast, lightweight model
    - Gradient boosted decision trees
    - LightGBM

Model	High Impact in top 10%	Previous impact	Other data
Machine learning	85%	Yes	Yes
Rule based	81%	Yes	No