Automating Claims Adjudication With Machine Learning
CLAIMS ADJUDICATION PROCESS

1. CLAIM SUBMISSION
   From policy holder or healthcare provider

2. VERIFICATION
   Rule-driven manual verification and investigation

3. ACCEPTANCE/REJECTION
   Explanation of benefits, details of findings, justification for settling.

4. PAYMENT DETERMINATION
   Rule-based determination of settlement amount
CLAIMS ADJUDICATION CHALLENGES

- Claims submission, collection, and processing is data and time intensive
- Manual verification is cumbersome and prone to errors
- Fraudulent claims result in huge losses to business
- Errors in claims adjudication process can result in additional effort and customer dissatisfaction
- Claims is a contact intensive part of the insurance customer lifecycle
New claims are fed to ML classification models trained on historical claims data. The models generate diagnostic codes for each claim (approved, denied, partial payment).

A rules-based system sends each claim to its work queue based on its code. Low threshold claims are auto-cleared.

Human operators quickly identify issues in claims directed to them with the help of the diagnostic codes.
TRANSITIONING TO AUTO-ADJUDICATION

CLAIMS SUBMISSION
- Chatbots
- Portals
- Emails
- OCR
- Handwriting recognition
- Data extraction and classification

CLAIMS ASSESSMENT
- Check claim validity using trained ML models/engine
- Generate fraud score using predictive AI modeling
- Classify payable and non-payable line items
- Recommend outcome (approve, deny, partial payout)
- System is trained with historical data
- Feedback provided to ML engine for continuous learning and improved accuracy

CLAIMS DISBURSEMENT
AI-driven Chatbots

1. Asks all the right questions to ensure error-free claim submission
2. Reduces claims processing time with little to no manual intervention
3. 24X7 availability
AUTOMATING DATA EXTRACTION

- Structured and unstructured data extracted from forms and documents
- Data extraction expedited using cognitive technologies such as Natural Language Processing (NLP), Optical Character Recognition (OCR), and Robotic Process Automation (RPA) technologies
- Deep learning-based handwriting recognition
AUTOMATING FRAUD DETECTION

- Machine learning models trained on historical claims can help analyze new claims to establish veracity.
- Claims data can be categorized for training, testing, and cross validation.
- Algorithms can be trained on data with parameters continuously tweaked for cross validation.
- Generation of diagnostic codes/warnings can help determine whether to accept, deny, or further validate a claim.
Faster and accurate processing: Integration of cognitive technologies, such as computer vision, chatbots, OCR, and RPA, reduces claims processing time and human errors significantly.

Improved customer experience: Speedier processing leads to quicker claims resolution.

Touchless claims: In the aftermath of global pandemic, digitalization and ML-enabled solutions would be the right way forward for claims adjudication. This would be ideal for areas such as auto and property insurance.

Fraud-free settlements: Pre-trained neural networks glean insights from historical data to identify patterns and flag fraudulent claims.

Better insights into claims costs.
Strong AI/ML capabilities - NLP, computer vision, chatbots, OCR, document classification, and handwriting recognition

Expertise in leading RPA platforms such as UiPath, Blue Prism, Jiffy.ai, and a range of complementary technologies

Agile approach to project delivery

Expertise in enterprise security

Cloud skills for centralized implementation

Competitive pricing