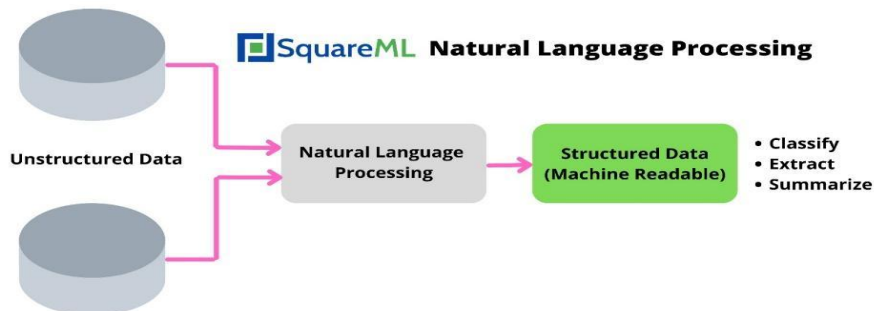




Making Patient Journey Smarter Using SquareML's NLP

Leverage the power of **SquareML's** Natural Language Processing (NLP) Capability using powerful **computational linguistics**, a rule-based modeling of human language to convert unstructured data into structured data. **SquareML's** NLP capability can be used to handle the processing and analysis of large volumes of unstructured data, and can be a real game changer.



Both providers and payers are looking for improving health at the patient level through better care coordination. Applying **SquareML's** NLP algorithms in an appropriate way can improve capturing of conditions and diagnosis information from unstructured patient data in a timely manner and facilitates its use for analytical purposes.

1. Natural Language Processing: applying technologies, such as machine learning (ML) algorithms, deep learning models, and real-time analytics along with NLP techniques to identify and analyze machine-generated structured data.
2. Document recognition: combining NLP and ML to gain insights into human-generated, natural language unstructured data.

Using NLP to improve insight discovery and better patient experience

Most of the clinical data of a patient is in the form of unstructured text, including medical conditions, vitals and clinician notes captured using free-text fields. Often, some valuable patient data captured in unstructured format are unnoticed due to the manual review processes that are required to perform analytics or predictions.

Unstructured Text in RPM software

Admission Date: 2017-12-25
New Patient


The patient is a 74-year-old male, who was experiencing severe chest pain on the left side. The patient states that he slipped on the bathroom and has mild pain on the lower back. He says he has been feeling low since then. Complaints of breathing trouble and the pt is allergic to Sulfate.

Past Medical History:

- Diabetes Type 2
- Asthma / Wheezing

Vitals:
Pt has smoking and alcohol history. Occasional drugs. Height 173 cm, weight 81 kg, blood pressure 110/80

Lab data:
2017-9-10 03:20PM GlycoHgb A1c - 7.0*
2017-9-10 03:20PM Creatinine, 24 hour urine g/24 h-1.2



SquareML's NLP algorithms combined with clinical intelligence, workflows and strong analytical capability to deliver intuitive insights that can showcase both financial and operational results. NLP algorithms scans the unstructured text and identifies clinical risk factors, diagnosis codes so they can be used more quickly and accurately to make patient risk status recommendations.