ClearViz

Visualization Website for ClearNLP

What is NLP?

Natural Language Processing

Features

- → Dependency parsing
- → Tokenization and segmentation
- → Part-of-speech tagging
- → Morphological analysis
- → Semantic role labeling
- → (Sentiment Analysis)

Goal

Main: Demonstrate ClearNLP's features and performance to potential users through a simplistic and easy to use interface.

Secondary: Offer a complete NLP processing API and website at a competitive price range.

Market

Researchers and academics in NLP field

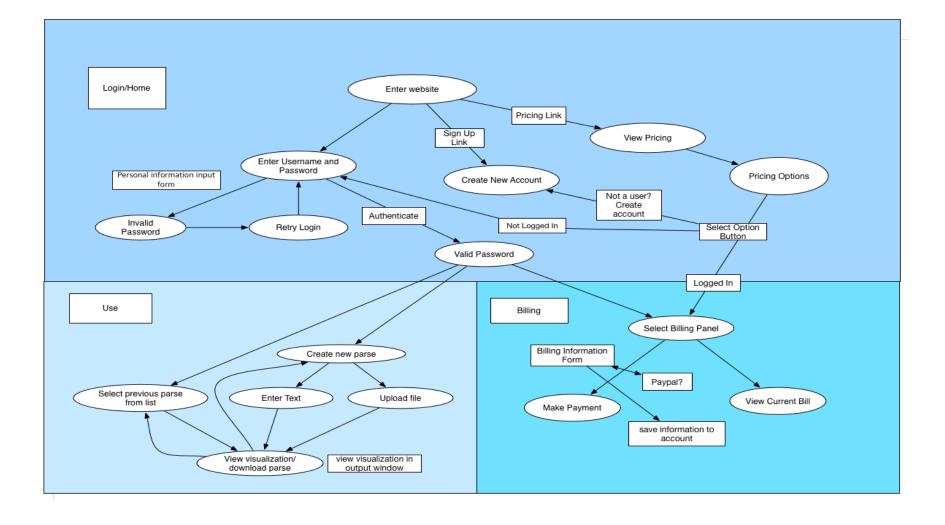
Companies in need for NLP tools without the technical expertise and/or processing power

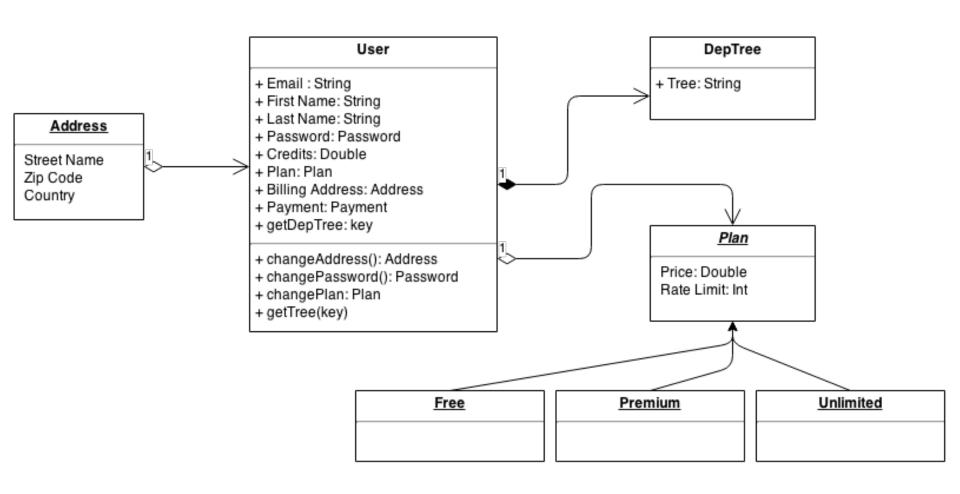
The Natural Language Processing (NLP) market is estimated to grow from \$ 3,787.3 million in 2013 to \$9,858.4 million in 2018. This represents a Compounded Annual Growth Rate (CAGR) of 21.1% from 2013 to 2018.

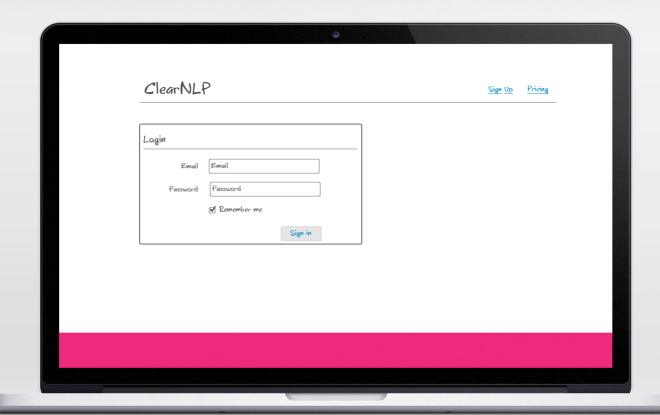
- ReportsnReports.com

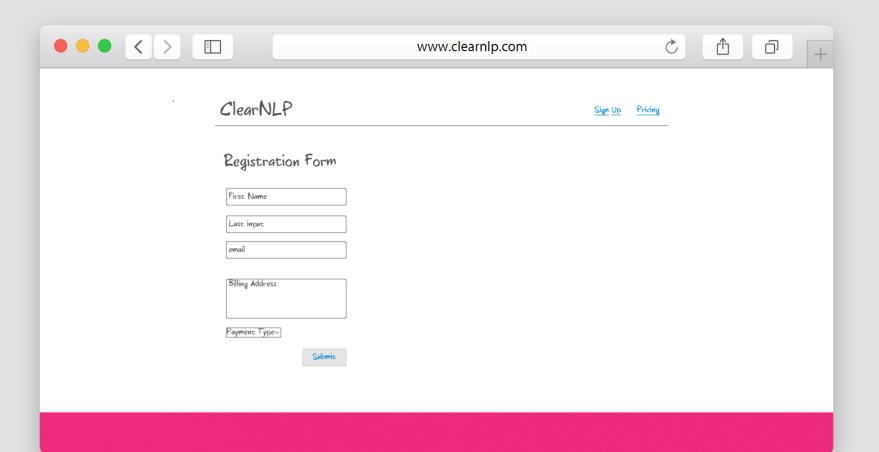
Competitors

- → Commerical: AlchemyAPI NLP
- → Non-Commerical:
- → Illinois CloudNLP
- → Stanford CoreNLP
- → Other NLP APIs

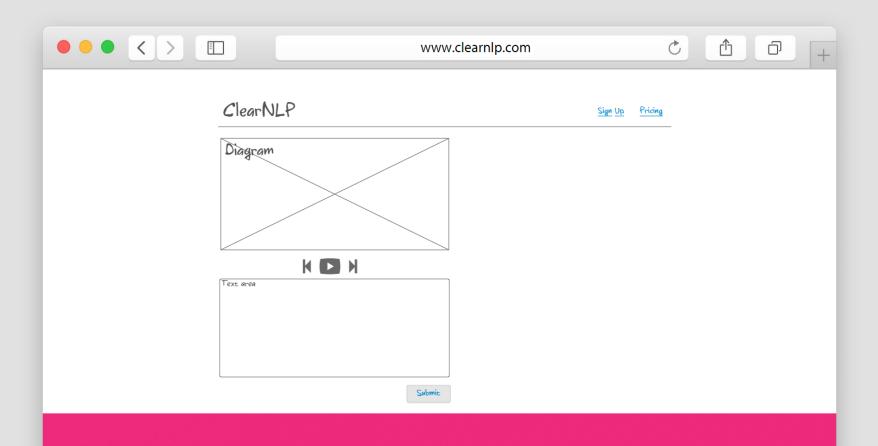












Frameworks/Processes

- → MEAN Stack for visualization site
- → Spark for RESTful API on Amazon EC2
- → Apache Otlu for Oauth2
- → (Possibly switch to Spring IO)
- → Slack for communications
- → Pivotal Tracker for project management

Team Skills

Everyone: Java + Javascript

Mike: Amazon Web Service (AWS)

Use Cases

Linguistics research

Large scale text processing

Feature extraction

- Healthcare
- Military
- Law

Responsibilities

Mike - Amazon AWS + Visualization + Spring.io

Deh Jun - Mean.js

Andrew - Mean.js

User Story #001: Text analysis

As a business or researcher I want to extract dependency tree features so I can analyze texts based on these features rather merely words and word order.

User Story #002: Question Answering

I want to be able to extract dependency tree features to recognize data more accurate and synthesize in more naturally sounding answers.

User Story #003: Machine Translation

As a business, I would like to obtain accurate dependency tree features so I can create a more accurate model for machine translation software.

User Story #004: Grammar check and suggestion

As a developer, I want to create dependency trees features to assess grammar and suggest grammar corrections.