ClearViz

Visualization Website for ClearNLP

Description

NLP: Natural Language Processing

Goals:

- 1. Demonstrate ClearNLP's features and performance to potential users through a simplistic and easy to use interface.
- 2. Offer a complete NLP processing API and website at a competitive price range.

<u>Features</u>

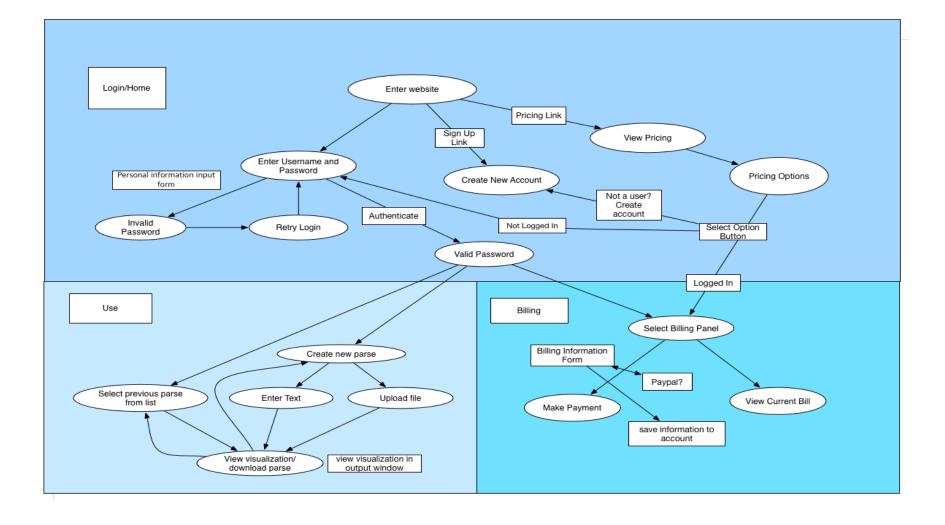
- Dependency parsing
- Tokenization and segmentation
- Part-of-speech tagging
- Morphological analysis
- Semantic role labeling
- (Sentiment Analysis)

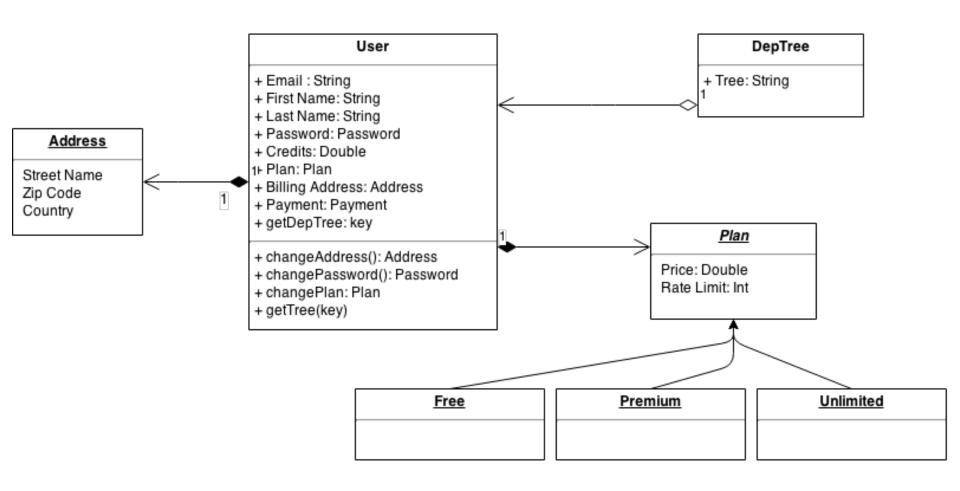
Market

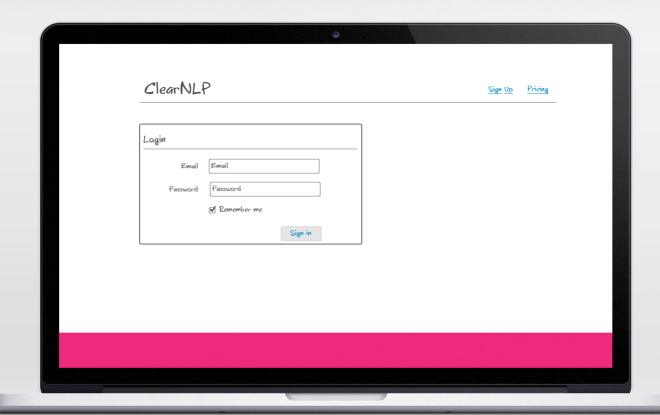
- Researchers and academics in NLP field
- Companies in need for NLP tools without the technical expertise and/or processing power
- The Natural Language Processing (NLP) market is estimated to grow from \$ 3,787.3 million in 2013 to \$9,858.4 million in 2018. This represents a Compounded Annual Growth Rate (CAGR) of 21.1% from 2013 to 2018. (ReportsnReports.com)

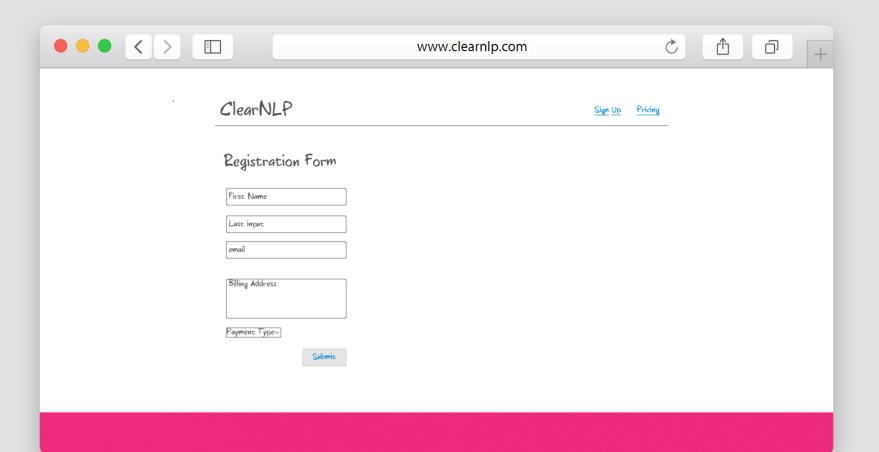
Competitors

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

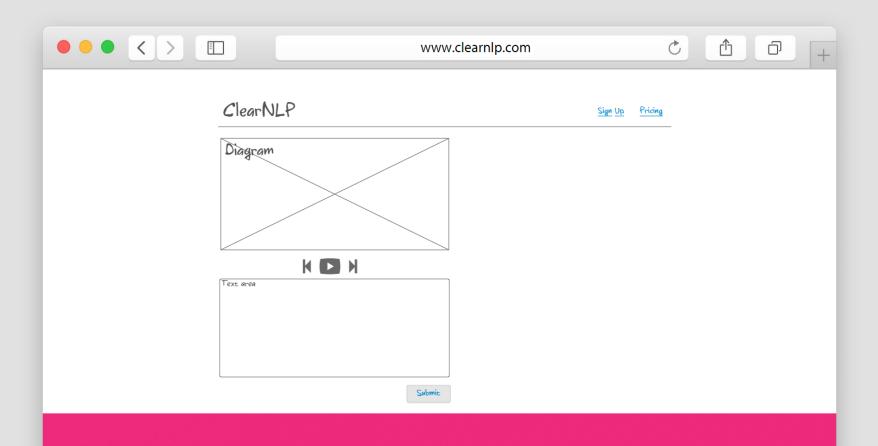












Frameworks/Processes

- 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.