

CONTRACT NERD



A tool purposed primarily to protect the interests of a second party to a contract.
You upload. We analyze. You decide!

Introduction



Research Question: Can we effectively leverage Natural Language Processing to optimally ensure the protection of the second party to a contract? If so, how?

Related Work

goHeather



Legly

According to studied law cases, “risk” in a clause is underpinned by:

1. Lexical Ambiguity
2. Syntactic Ambiguity
3. Undue Generality
4. Redundancy

Data

The data is primarily PDF files containing the following:

1. State-level laws
2. Sample contracts
3. Repositories of sample clauses
4. Clauses generated by Prompt 3

LLaMA Prompting



Model: LLaMA 3.1 405B;
• Temperature = 0,
• Top_p = 1,
• Top_k = 1,
• Max_tokens = 4096

EXTRACTION

PROMPT 0A

Extract the unique laws and regulations from this document:

PROMPT 0B

Identify and extract the contract clauses in this contract, detailing all figures and necessary specifics.

GENERATING

PROMPT 3

You are a contract language specialist tasked with identifying and creating transformations of contract clauses to illustrate linguistic and legal ambiguities. Using the clause provided, apply each of the following transformations: 1. Lexical Ambiguity, 2. Syntactic Ambiguity, 3. Undue Generality, 4. Redundancy, 5. A combination of all of the above.

The output should strictly be of the following format, with no exceptions. Do not include explanations:
Original Clause: abc, Lexical Ambiguity: def, Syntactic Ambiguity: ghi, Undue Generality: jkl, Redundancy: mno, Combination: pqr

COMPARISON

PROMPT 2

You are a contract language specialist tasked with reviewing the following contract clauses compared to the provided regulations. Follow these steps carefully:

1. **INITIAL ANALYSIS:** First, create a structured tree of the regulations, breaking them down into: (a) Main regulatory requirements, (b) Sub-requirements, (c) Specific compliance criteria
2. **SYSTEMATIC REVIEW:** For each contract clause: (a) Break down the clause into its core components, (b) Map each component against the regulation tree, (c) Document the logical path of comparison
3. **CLASSIFICATION REASONING:** For each potential non-compliant clause: (a) State the clause, (b) List the specific regulations it might violate, (c) Explain the reasoning path
4. **SELF-REFLECTION CHECK:** Challenge initial classifications.
5. **FINAL OUTPUT:** Only return clauses that are confirmed non-compliant after this analysis. The final output should only detail the below for each non-compliant clause: (a) Quote the specific clause, (b) Cite the exact regulation(s) violated, (c) Explain the violation with reference to the analysis chain, (d) Include confidence level

PROMPT 4

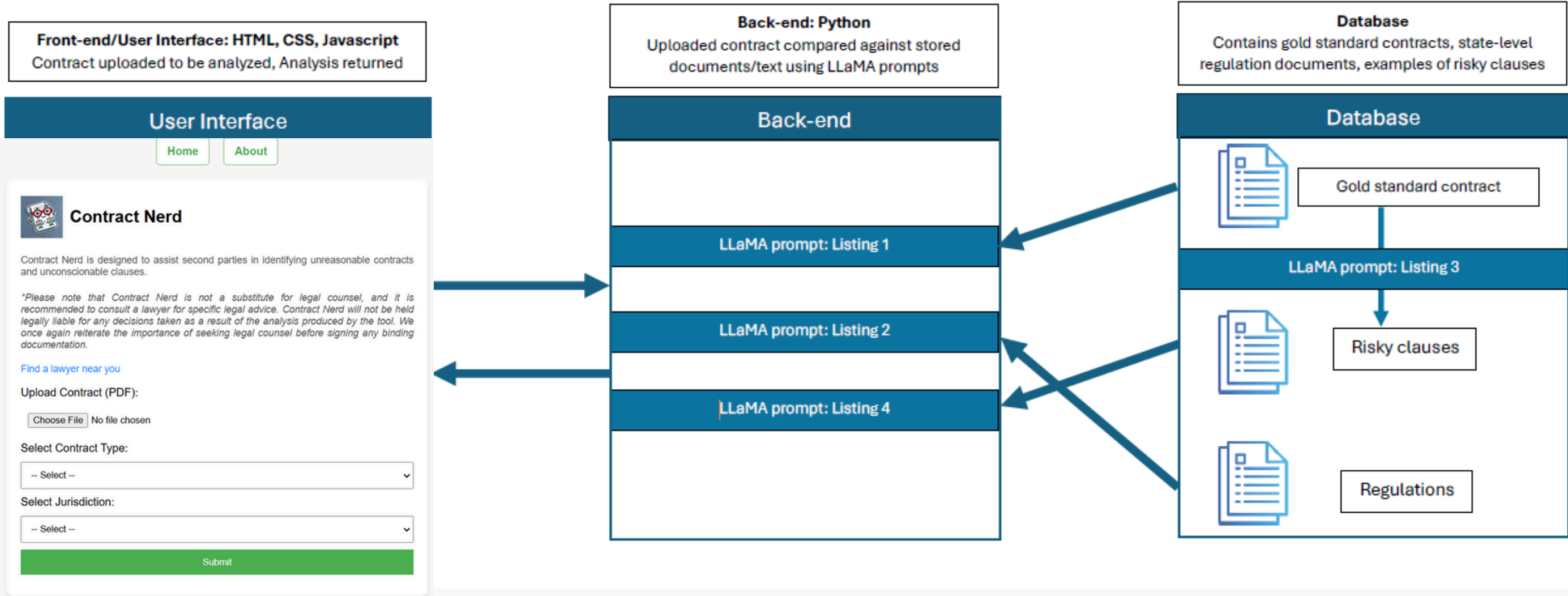
Your goal is to classify each clause as one of the following: (a) Unenforceable, (b) Risky (but enforceable) (c) Non-risky Enforceable.

Review the clauses and compare them against the provided examples of risky clauses. Follow this process step by step:

1. **Risky Clause Comparison:** Compare all clauses classified with medium and low confidence against the provided examples of risky clauses. For each comparison: (a) State whether the clause aligns with the examples of risky clauses, (b) Provide justification for your comparison.
2. **Final Output:** The final output should classify clauses as unenforceable, risky, or non-risky enforceable after the analysis. For each flagged clause, include: (a) The full text of the clause, (b) The exact regulation(s) or criteria implicated (if classified as unenforceable), (c) It's classification (i.e., unenforceable, risky or non-risky enforceable), (d) A clear explanation of its classification, (e) Confidence level and key deciding factors. Give the final output only.

Methodology

- The approach is two-fold:
- Using a “gold standard” contract, perform few shot learning techniques to generate “risky”, enforceable clauses.
 - Through a web interface, the user interacts with Contract Nerd by uploading contract, and setting the contract type and jurisdiction parameters



Sample Output Comparison

Clause: By signing this agreement, the employee agrees to work for the company for the rest of their life, thereby forfeiting their right to resign.

Contract Nerd:
A. Murphy v. American Home Products Corp., 58 N.Y.2d 293 (1983)",
B. this case highlights that "New York is an “Employment-at-Will” state; This means that an Employee may terminate his or her employment at any time.
C. Not enforceable - Confidence level: High

Legly:
We found 0 clauses that you need to take a closer look at.

goHeather:
Such a clause is likely unenforceable in most jurisdictions, as it violates basic employment rights and principles of personal freedom.