AI-Based Contract Review

User Manual

By:

Jarrett Hill

Mattea Petrillo

Submitted in partial fulfillment of the requirements for COMP4710 Senior Design to the Department of Computer Science and Software Engineering, Samuel Ginn College of Engineering, Auburn University

Auburn, Alabama
December 4, 2023

TABLE OF CONTENTS

1. Program Information

1.1 About

This software will assist the Office of Sponsored Programs' contract negotiators in researching and reviewing new research contracts. The system will assist in contract review by scanning contract proposals and highlighting language that conflicts with Auburn University's acceptance criteria. Alongside detecting contractual issues, this program should provide alternative text to replace the problematic language with acceptable language and show Auburn's justification for making said changes. This program should have the capability to learn from successful contract review negotiations to refine future performance. This program should also have functionality to measure the overall risk of a given contract based on attributes such as scope of work, contract partner, budget amount, quality of terms, etc. Combined, all of these tools will assist OSP's contract reviewers in quickly identifying, assessing, and countering problematic contract terms, which will greatly increase the overall number of contracts the OSP can process.

1.2 About

Our AI-Based Contract Review is an advanced software solution developed to improve the efficiency of the contract negotiation process within the Office of Sponsored Programs (OSP). The program's primary objective is to offer contract negotiators with the necessary tools by thoroughly investigating and assessing new research contracts. The technology systematically identifies wording that is inconsistent with Auburn University's acceptance requirements by using complex algorithms to scan contract proposals.

In addition to detecting breaches in contracts, the program is essential in offering workable alternatives, substituting disputed wording for reasonable wording. It also clarifies Auburn University's justification for the suggested modifications. Furthermore, the system can learn dynamically, using knowledge from successful contract negotiations to continuously improve and maximize its future performance.

Furthermore, the software has an extensive risk assessment feature that assesses many factors, including the contractual partner, the task's extent, the budget, and the terms' quality. The software can calculate the total risk attached to a particular contract according to its comprehensive approach. The AI-Based Contract Review integrates these various methods to enable OSP's contract reviewers to quickly identify, assess, and resolve problematic contractual provisions. As a result, this increased productivity enhances the OSP's ability to handle a higher volume of contracts accurately and efficiently
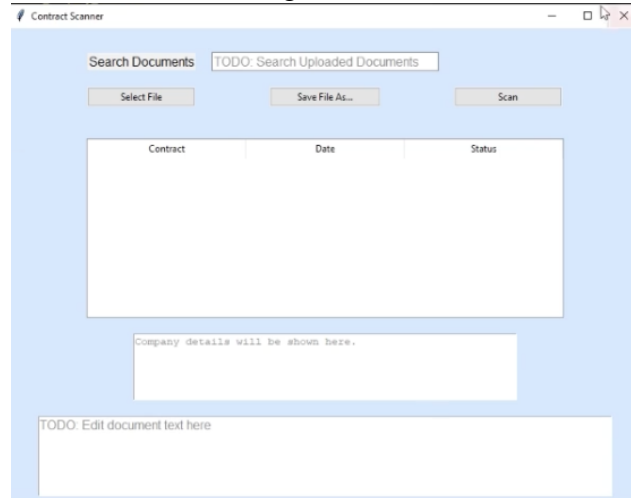
1.3 How It Works

To utilize our system effectively and initiate this process seamlessly, users will open our Graphical User Interface. Once successfully accessed, the dashboard within the GUI serves as the central hub for scanning contracts for potentially problematic language. The process involves selecting the target contract by clicking the "Select File" button, followed by specifying the file name and destination directory through the "Save File As…" button. Upon completion, users initiate the scanning process by clicking "Scan," prompting our program to analyze the document for any concerning language. Following the scan, the status updates to "Scanned" and "Ready to View," with extracted company details displayed in the Text box beneath. To access the scanned documents, users can double-click on them, and for viewing within Microsoft Word, simply click on the Microsoft Word icon. The opened document will reveal highlighted sections indicating potential problematic language and FAR Clauses, facilitating a comprehensive review.
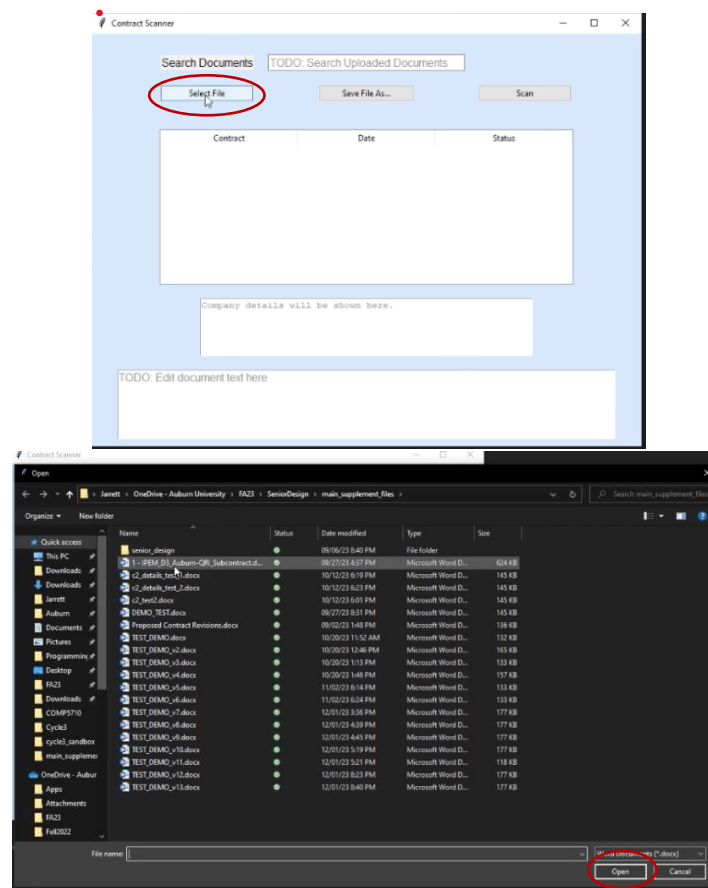
2. How To Use The Program

2.1 Open The Program

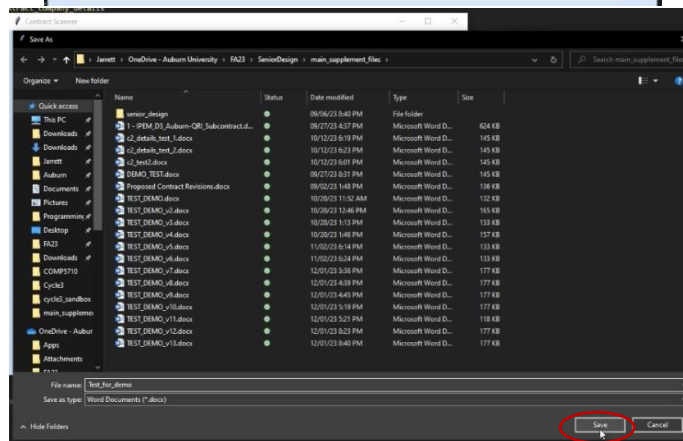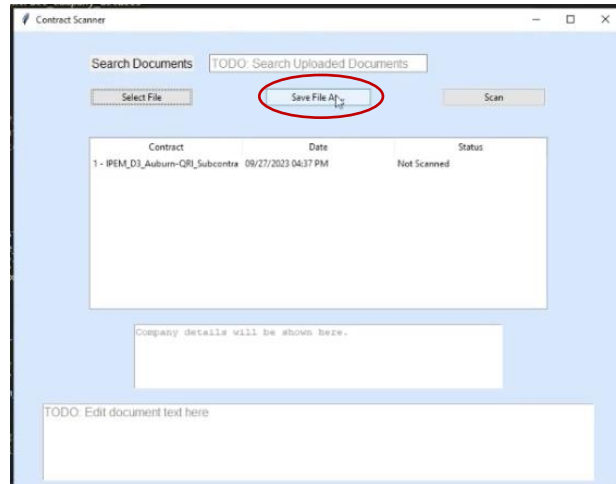- To initiate the process, launch the Program.

2.2 Selecting and Scanning a Contract
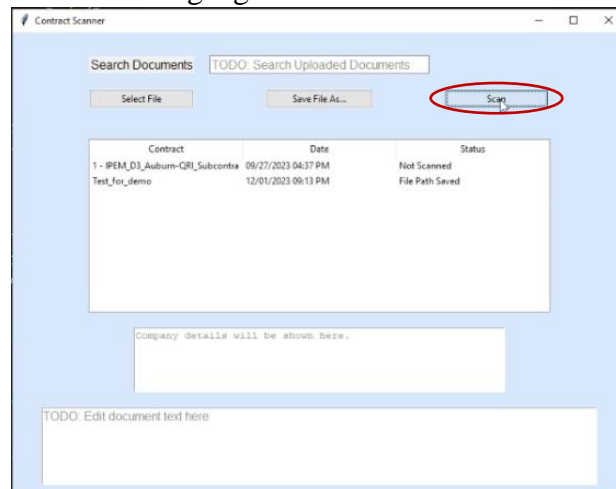
- a. Begin by clicking the "Select File" button and choose the target contract from your file, then click open.

- b. Next, click the "Save File As…" button. Specify the desired file name, choose the destination directory, and click "Save."

- c. Click the "Scan" button to start the scanning process, where our program will analyze the file for any problematic language.
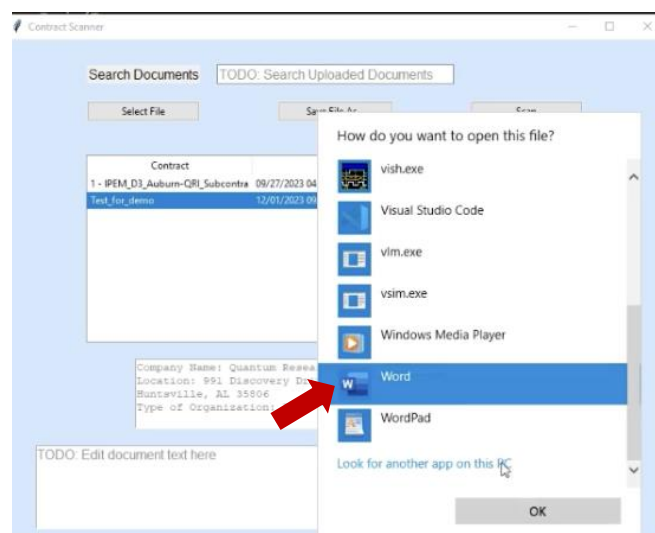
2.3 Reviewing Scan Results

- Once the scanning is complete, the status will be updated to "Scanned" and "Ready to View."
- The Text box below the status will display extracted company details from the document.

2.4 Accessing Scanned Documents

- When you are ready to view the scanned document, double-click on it. To open it on Microsoft Word, click on the Microsoft Word icon.

2.5 Viewing Scanned Document

- The scanned document will open with potential problematic language and FAR Clauses highlighted for your review.

1st response to Sponsor: add "during normal business hours and with reasonable advance notice"

[POTENTIAL PROBLEMATIC LANGUAGE DETECTED]

The Contractor shall include the assessment of risk used to develop their evaluation plan and the best method of analysis.

Problem Category: Personnel

Common Problems: UNIVERSITY shall use its best efforts to ensure that there are no changes in the person of the project director.

Preferred Language: ["Auburn has the personnel and facilities necessary to complete the Project. Auburn will undertake the Project through its Department of: ***. Auburn's Principal Investigator for the Project is: ***."]

==Why: The word "best" has legal implications in contract law. A court could hold that a party subject to an efforts provision was obligated to make efforts out of proportion to the benefits to it under the contract in question.==

1st response to Sponsor: change to reasonable

[POTENTIAL PROBLEMATIC LANGUAGE DETECTED]

The Contractor shall participate in Government meetings as needed.

Problem Category: Personnel

Common Problems: UNIVERSITY shall use its best efforts to ensure that there are no changes in the person of the project director.

Preferred Language: ["Auburn has the personnel and facilities necessary to complete the Project. Auburn will undertake the Project through its Department of: ***. Auburn's Principal Investigator for the Project is: ***."]

==Why: The word "best" has legal implications in contract law. A court could hold that a party subject to an efforts provision was obligated to make efforts out of proportion to the benefits to it under the contract in question.==

1st response to Sponsor: change to reasonable

The Contractor shall analyze contractor technical data and manufacturing techniques to assist in the determination of cost/price reasonableness of submitted sole source proposals through cost and price analysis by using accounting and auditing data, forecasting techniques, weighted guidelines, learning curves, and regression analysis in order to recommend pricing objectives to the Government.

Analysis will include all aspect of earned value management to ensure R&D efforts are monitored for cost, schedule, and performance against the integrated master schedule and budget of the program or security cooperation effort.

The Contractor shall review, analyze, and evaluate cost or pricing data contained in proposals to determine reasonableness of all elements of cost.

[POTENTIAL PROBLEMATIC LANGUAGE DETECTED]

The analysis shall include results of a Defense Contract Audit Agency Report, Technical Evaluation, Defense Contract Management Agency (DCMA) Report and DCMA Commercial Item Group report of the prime or major suppliers.

Problem Category: Audit

Common Problems: All costs incurred in the performance of the research effort will be subject to audit by SPONSOR's cognizant Federal audit agency. Auburn agrees to allow the auditor(s) access once per project period at Sponsor's expense, to records necessary to support the reported costs.

Preferred Language: ["All costs incurred in the performance of the research effort will be subject to audit by SPONSOR's cognizant Federal andR agency. Auburn agrees to allow the auditor(s) access once per project period at Sponsor's expense, during normal business hours and with reasonable advance notice to records necessary to support the reported costs. \n"]

Why: Auburn should be given advanced notice and we should not have to open up at night or on the weekends.

1st response to Sponsor: add "during normal business hours and with reasonable advance notice"

The Contractor shall be required to provide financial analysis and accounting support to help the government achieve audit readiness as well as customer account management.

The Contractor shall be required to support the creation and analysis of process mapping initiatives for Title-10 and Title-22 functions; respond to Dormant Account Review-Quarterly; complete, review, correct, and submit audit sample packages via approved systems; and train PEO MS personnel on current audit processes, best practices, or methods to be successful in audit readiness.

The contractor will develop best practices, procedures, and command guidance that complies with logistical, business management, and engineering regulations.

The Contractor shall provide statistical and trend analysis on audit tasks, financial error reporting, security assistance performance and deliveries against program schedule, and recommend corrective action to improve PEO MS overall performance.

---

excess of 40 hours per work week to include holidays, weekends, and/or during irregular times and shifts based upon mission operations and exercises.

[POTENTIAL PROBLEMATIC LANGUAGE DETECTED]

Travel.

Problem Category: PI Signature

Common Problems: Sponsor will want the PI to sign the agreement as a Party.

Preferred Language: []

Why: Auburn faculty do not have signature authority and cannot be parties to agreements.

1st response to Sponsor: change it to acknowledges. They can sign as read & acknowledged if needed. Any language in the agreement requiring the PI to agree in writing should be edited to specify that the PI will agree or have agreed to follow the terms (not in writing)

Travel may be required in performance of this TO.

Specific travel requirements will be identified and funded as the need arises.

The contractor has no authority to incur travel costs without explicit written approval of the COR (e-mail is acceptable).

Under no

circumstances shall the contractor incur travel costs in excess of the funded amount stated in the TO.

Specific times, dates and places of travel shall be identified in the request for approval.

[POTENTIAL PROBLEMATIC LANGUAGE DETECTED]

The contractor shall not be reimbursed for local travel.

Problem Category: Personnel

Common Problems: UNIVERSITY shall use its best efforts to ensure that there are no changes in the person of the project director.

Preferred Language: ["Auburn has the personnel and facilities necessary to complete the Project. Auburn will undertake the Project through its Department of: ***. Auburn's Principal Investigator for the Project is: ***."]

==benefits to it under the contract in question.==

1st response to Sponsor: change to reasonable

[POTENTIAL PROBLEMATIC LANGUAGE DETECTED]

CLAUSES INCORPORATED BY REFERENCE

==52.247-29 8.0.6==

Problem Category: Warranties

Common Problems: Best Effort Clauses

Preferred Language: [" AUBURN MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, REGARDING ITS PERFORMANCE UNDER THIS AGREEMENT. AUBURN DISCLAIMS ANY WARRANTY OF MERCHANTABILITY, USE OR FITNESS FOR ANY PARTICULAR PURPOSE AND NON-INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO STUDY DATA, RESULTS, INVENTIONS, COPYRIGHTABLE WORKS, TANGIBLE RESEARCH PROPERTY, OR OTHER RESEARCH RESULTS PROVIDED BY AUBURN.\n"]

Why: Clauses requiring "best efforts" leave the University open to non-payment or claims of reimbursement for dissatisfied clients. "Best efforts" is a vague concept best avoided. If it cannot be negotiated out of the contract completely, it should at least be changed to "reasonable efforts" or "good faith efforts."

1st response to Sponsor: "best efforts" should be changed to "reasonable efforts" or "good faith efforts"

Origin FEB 2006

==52.247-34 8.0.6==

Destination NOV 1991

CLAUSES INCORPORATED BY FULL TEXT

==52.211-11 LIQUIDATED DAMAGES-SUPPLIES, SERVICES, OR RESEARCH AND DEVELOPMENT (SEP 2000)==

If the Contractor fails to deliver the supplies or perform the services within the time specified in this contract, the Contractor shall, in place of actual damages, pay to the Government liquidated damages of * to be determined at the task order level when applicable per calendar day of delay.

If the Government terminates this contract in whole or in part under the Default--Fixed-Price Supply and Service clause, the Contractor is liable for liquidated damages accruing until the Government reasonably obtains delivery or performance of similar supplies or services.

These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

The contractor's assertions, including the assertions of its subcontractors or suppliers, shall be submitted with the proposal

to the Contracting Officer for review.

[POTENTIAL PROBLEMATIC LANGUAGE DETECTED]

If no assertions are made, the contractor shall state "None," sign, and date.