



AI Bid Analyzer

Field Session Project Proposal – Fall 2026

01 Company Background

Infinity Technology Systems provides software and managed IT for construction companies, built around how they actually work. We come from construction, so we do IT with a construction mindset. That's what sets us apart: we've been in our clients' shoes, and the trade's focus on getting the details right is what we bring to everything we build.

Our work spans custom software suites, AI-powered workflows, system administration, and full managed IT. We take on hard, current problems, the kind of technical work most companies aim at flashier industries, and point it at construction instead.

02 Project Background

Every week, invitations to bid on construction jobs land in the estimating inbox, each one a bundle of documents: budgets, drawings, locations, scopes of work. Right now a person opens every one, reads through it, and decides whether the job is worth bidding based on experience and gut. It works, and the people doing it are good at it, but it's slow, and when an estimator is already juggling a dozen active bids, the analysis each bid deserves can falter.

This project builds the tool that does that first pass. The input is messy in the way real-world data is messy: a folder of PDFs, spreadsheets, and drawings, no two bid packages laid out the same way, sometimes a thousand sheets deep. The interesting work is teaching a system to pull the signal out of that, the location and distance, the scope, the size of the job, the client, and weigh it against how Infinity Commercial and Industrial Concrete decides what to bid. We'll hand over a documented

bid-analysis process to work from, so the challenge isn't inventing the criteria, it's building a pipeline that reads real documents and reasons over them the way an experienced estimator would. Modern AI makes this genuinely possible in a way it wasn't a couple years ago, and figuring out how to make it reliable is the heart of the project.

The end result is a tool that takes in a bid package and produces a clear report: the key details pulled out, and a scored recommendation to bid or not. A bid lead reviews what the system suggests and makes the final call. It's open-ended on language and framework, we want the team to choose the right structure for the job, and we'll provide test and training data to build against.

03 Recommended Stack

This one is deliberately open. The project is really about the AI analysis, so we'd rather the team pick the language and framework that fit the approach they land on than hand them a stack. That said, Python is a natural fit for the document processing and AI work, and the pipeline breaks roughly into three parts: pulling text and data out of mixed document types like PDFs, spreadsheets, and drawings, running that through an AI layer that weighs it against the bid criteria, and generating a clean recommendation report. We'll share our bid-analysis process and datasets to build against. If the team sees a smarter way to structure it, then that's exactly the kind of thinking we're looking for.

04 Desired Skillset

- Strong interest in applied AI and machine learning
- Interest in working with LLMs and natural language processing
- Interest in wrangling messy, real-world data like PDFs, spreadsheets, and documents
- Interest in backend or data-pipeline experience
- Adaptable and self-directed. This project rewards independent research and picking up new tools on the fly

05 Preferred Team Size

We recommend a team of 4 students to ensure meaningful collaboration and a well-rounded skill set across the project.

06 Location

All work can be done remotely, with consistent support and regular feedback from the ITS team through virtual meetings and online tools. The team is based in New Braunfels, Texas, and is available for industry context and guidance throughout the project, but a member of staff will be available on Mines campus for consulting. Infinity Commercial and Industrial Concrete will be advising on the project.