

# FDE Assignment

## Option 1: Improve an existing application

We've built an agent (python file attached) that demonstrates how the Tavily API can be used in an agentic system. The system is very basic, has limitations and is not optimized. Your task is to meaningfully improve it in a way that demonstrates either an interesting technical approach and/or creates clear business value.

**Example improvements:** retrieval enhancements, RL, domain-specific use case, integrations, context engineering innovation, evaluation framework, etc...

### Deliverables:

- GitHub repository with your implementation
- Brief technical statement explaining your approach, thought process, and the value it creates (technical and/or business perspective)

## Option 2: Create a Notebook

Develop a single Python notebook that demonstrates an interesting technical concept related to AI engineering. This is your opportunity to showcase clear documentation, communication skills, and creativity. Diagrams encouraged.

### Example topics:

- A unique context engineering approach for handling sequential data
- An evaluation framework for agentic systems
- Any other relevant AI engineering concepts

## Requirements

- All work should be relevant to Tavily's focus: applied AI and AI engineering
- Demonstrate deep understanding of AI engineering and the ecosystem
- Less is more: emphasis on simplicity, clarity, and quality.
- No AI-generated slop. We want to see your authentic work and thinking