



## Assignment for AI Full-stack Intern

### Goal

Build a lightweight chat application that supports:

1. multi-turn conversation,
2. chatting about an uploaded image, and
3. chatting about data from a CSV provided either as a file upload or a URL.

### Functional Requirements

#### Core Chat

- Persist and display multi-turn history (user + assistant).
- Show who said what and when. Basic markdown rendering is fine.
- Handle loading/streaming states gracefully.

#### Image Chat

- Let the user upload an image (PNG/JPG).
- Preview the image in the chat.
- Allow the user to ask questions about the image (e.g., "What's in this photo?"). The assistant's reply should clearly reference the uploaded image.

#### CSV Data Chat

- Accept a CSV via:
  - File upload **or**
  - Pasted URL (e.g., a raw GitHub CSV link).
- Parse the CSV and let the user ask questions like:
  - "Summarize the dataset"
  - "Show basic stats for numeric columns"
  - "Which column has the most missing values?"
  - "Plot a histogram of **price**" (a simple chart or textual summary is acceptable)
- Display results inline (tables/text; a simple chart is a plus).

### Non-Functional Expectations

- Clear, readable code with sensible structure.
- Useful error handling (bad CSV URL, parse errors, large files, etc.).
- Minimal but clean UI/UX (desktop is enough).
- Keep secrets in **.env**; don't commit credentials.

## Tech Notes

You can use any backend/frontend framework that you like, you can use any model / APIs that you want. Encourage to use codex/claude code to support your coding, we are heaving use AI supporting coding for productivity.

We also accept vibe coding, just make sure you explain how you work with coding tools during the interview.

## What to Submit

- **Repository link with:**
  - **README.md** including:
    - How to run locally
    - Short video demo features
  - Clear project structure