\*\*Introduction\*\*

This practical coding exercise is designed to assess candidates for the LLM internship role at Monterone Partners. The task aims to evaluate your coding skills and familiarity with LLM basics and APIs. While each question could be perfected given unlimited time, we expect this exercise to take no more than one day to complete.

\*\*Task Description\*\*

You will be provided with a recent article on ASML, the semiconductor equipment manufacturer, in PDF format. Using this document as input, complete the following LLM-based tasks:

1. Generate a concise summary (1-2 paragraphs) highlighting the key points of the document.

2. Create a bullet-point summary containing 5 main ideas from the document.

3. Use an LLM to answer the following questions based on the document:

   a. What are the drivers of ASML's growth?

   b. What is the next big idea for ASML?

4. Develop a simple investment thesis based on the article and then, separately, a critic of this thesis:

   - Input: The investment thesis

   - Output: An analysis outlining potential flaws in the thesis

   - Requirements:

     \* The critic should attempt to cite references for its feedback and identified flaws

     \* Focus on creating functional code (80% of the evaluation) rather than perfecting the critic's reliability/quality (20% of the evaluation)

\*\*Submission and Review\*\*

Prepare your code in a notebook-style format for a live review session. During this 30-45 minute session, you will:

1. Walk us through your code

2. Explain your approach and reasoning for each step

We look forward to discussing your implementation and thought process.