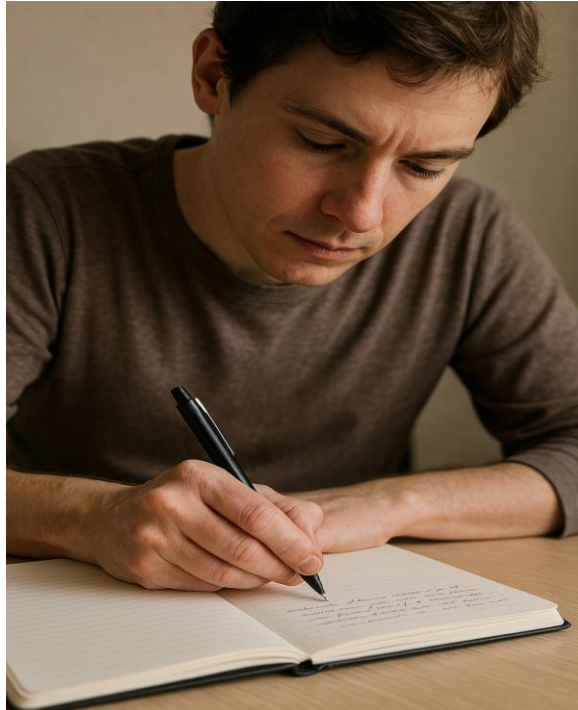# Task 1: Understanding and Exploring Data Bias

Live Example of Data Bias:

Prompt: "generate an example of a person writing using their left hand."

Demographic Bias – The AI default to a young adult with light skin, which can reinforce a bias toward certain racial or age-related representations, even though left-handed people exist across all demographics.

Right-Handed World Bias – The way the hand is positioned reflect common media portrayals of left-handed writing, possibly emphasizing a curved wrist posture, which is not universal among left-handed people.

Cultural and Aesthetic Bias – The soft lighting, warm tones, and casual clothing reflect a Western artistic preference, potentially neglecting diversity in settings, clothing, or cultural depictions.

Other Examples of Bias in Large Language Models

1. **Gender Bias in Occupations**

   o Prompt: *"Describe a doctor and a nurse."*

   o Expected Bias: The model describe the doctor as a man and the nurse as a woman, reflecting gender stereotypes.

2. **Cultural Bias in Food Descriptions**

- o Prompt: *"Describe a traditional breakfast."*

- o Expected Bias: The response assume a Western-style breakfast (e.g., eggs, toast, and bacon) instead of considering cultural variations like miso soup in Japan or idli in India.

3. **Bias in Crime and Ethnicity**

   - o Prompt: *"Generate a crime story."*

   - o Expected Bias: The model disproportionately describe criminals as belonging to certain racial or socioeconomic groups, reflecting biases found in historical crime reporting.

4. **Beauty Standards**

   - o Prompt: *"Describe a beautiful person."*

   - o Expected Bias: The response lean toward Eurocentric beauty ideals (e.g., fair skin, blue eyes) instead of acknowledging diverse global beauty standards.

5. **Economic Bias in Success Stories**

   - o Prompt: *"Tell a story of a successful person."*

   - o Expected Bias: The response highlight traditional corporate or tech success (e.g., a startup founder in Silicon Valley) instead of acknowledging success in fields like community work or arts.