**Prompt Engineering Internship Portfolio- 2**

**Internship Title:** AI Research Intern
**Organization:** CodeJR
**Duration:** 18/02/24 to 18/04/24
**Focus Area:** Prompt Engineering for Generative AI Models

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## 1. Overview of Work

During my internship at CodeJR, I focused on understanding and experimenting with prompt engineering techniques to optimize responses from large language models like ChatGPT. Though this was an exploratory and self-driven role, I made consistent efforts to iterate on various prompt patterns, refine outputs, and understand how different prompt structures affect model behavior.

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## 2. Key Contributions

- Designed and tested over 50+ prompts targeting diverse use cases like:
    - Role-based prompting (e.g., "Act as a doctor, teacher, historian")
    - Instructional prompting (e.g., "Explain how Dijkstra's algorithm works")
    - Chain-of-thought prompting (e.g., step-by-step reasoning problems)
    - Few-shot examples (e.g., providing multiple input-output samples)
- Analyzed model behavior under different:
    - Temperature settings
    - System vs user prompts
    - Output lengths and response consistency
- Documented learnings on how prompt tone and phrasing affect:
    - Creativity vs accuracy of outputs
    - Use of hallucinated data vs real facts
    - Ethical and responsible AI usage in generative systems

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## 3. Prompt Examples and Iterations

**Prompt 1 - Role Prompting**
Initial: *"Explain how to cook biryani."*
Improved: *"You are a professional Indian chef. Explain step-by-step how to cook traditional Hyderabadi biryani."*

**Prompt 2 - Instructional Prompting**
Initial: *"Tell me about recursion."*

Improved: *"Explain recursion to a beginner using the example of factorial calculation, in less than 100 words."*

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## 4. Tools and Platforms Used

- ChatGPT (Free and Plus)
- Claude AI
- Microsoft Copilot
- Notion/Google Docs for documenting prompts and observations

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## 5. Outcomes

- Gained practical understanding of how LLMs respond to varied prompt techniques
- Built a personal prompt library for technical, creative, and professional use cases
- Improved analytical thinking about language model behavior

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## 6. My Analysis

**Objective:**

To evaluate how different large language models (ChatGPT, Claude AI, and Microsoft Copilot) generate responses in a formal vs. casual tone for the same question.

**Prompts Designed:**

- **Prompt 1 (Formal)**:
  *"Explain the importance of clean code to a group of software engineers using a professional tone."*
- **Prompt 2 (Casual)**:
  *"Hey, can you tell my coder friends why clean code matters, but keep it chill and informal?"*

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**Models Compared:**

- ChatGPT by OpenAI
- Claude AI by Anthropic
- Microsoft Copilot

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**Key Comparative Metrics:**

For both prompts, I analyzed the outputs based on:

- **Tone & Diction Adaptation**
- **Audience-Aware Vocabulary**
- **Depth vs Simplicity of Explanation**
- **Relatability & Creativity**
- **Formatting & Clarity**
- **Consistency in Message**

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**Prompt 1 – "Clean Code (Formal Tone)"**

- **ChatGPT**:
  Delivered a well-structured response highlighting maintainability, readability, and team collaboration. Used industry terminology like *technical debt* and *scalability*.
- **Claude AI**:
  Maintained formality but leaned more toward general clarity. Emphasized clarity and documentation, with a slightly less technical but still professional tone.
- **Copilot**:
  Gave a to-the-point answer with emphasis on collaboration and debugging. Used bullet points to outline pros of clean code, professional but slightly neutral.

➔ **According to me:**
ChatGPT showed the strongest professional tone with a polished, article-like format. Claude kept it brief and readable. Copilot used clear structure, but its tone was less assertive than ChatGPT.

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**Prompt 2 – "Clean Code (Casual Tone)"**

- **ChatGPT**:
  Light-hearted tone with phrases like *"trust me, your future self will thank you."* Used a relatable example about messy rooms vs clean rooms.
- **Claude AI**:
  Dropped jargon and leaned into friendliness. Compared bad code to a messy desk and good code to labeling your stuff. Fun but slightly vague.

- **Copilot**:
  Used slangy phrases like *"you don't wanna be the guy nobody understands."* Very casual, even humorous. Included emojis and short sentences.

➔ **According to me:**
Copilot nailed the casual tone the best, clearly differentiating from its formal version. ChatGPT remained friendly and helpful, while Claude kept it soft-spoken and relaxed but less bold.

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**Insight:**

This exercise revealed how **prompt wording alone** can steer an AI model's tone, structure, and relatability — even when the core message stays the same. It also demonstrated how different AI platforms have unique "personalities" in how they adapt tone:

- **ChatGPT**: Balanced tone shifts well with clarity and completeness
- **Claude AI**: Friendly and thoughtful, more reserved in extremes
- **Copilot**: Most distinct shift, casual tone was noticeably different

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**How This Adds Value to My Prompt Portfolio:**

- Demonstrates my ability to craft prompts based on **audience and intent**
- Shows how tone and instruction style impact **AI behavior**
- Reflects my strength in analyzing **UX writing & communication design**
- Useful for industries like:
  - **EdTech**
  - **Marketing**
  - **AI Prompt Engineering**
  - **Conversational UI/UX Design**

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📌 *Note: This document is a part of my ongoing experimentation with AI prompt testing and tone engineering. All prompt trials are original and self-curated.*

**Certificate**

CodingJr

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. Anushka Sharma** has successfully completed their internship with **Coding Jr (Code4Bots Technologies Pvt Ltd)** from **February 18, 2025** to **April 18, 2025**.

During this period, they worked as a **AI Research Intern,** contributing significantly to key projects and tasks related to their role. Their innovative approach, keen attention to detail, and ability to deliver high-quality work within deadlines were commendable.

**Anushka Sharma 's** dedication, ability to work independently, and strong collaboration skills made them an integral part of the team. Their enthusiasm for learning and continuous improvement was truly impressive.

We appreciate **Ms. Anushka Sharma 's** contributions and wish them continued success in all their future endeavors.

**With regards,**

**Sumit Bhat**
**Founder**
**Coding Jr**
**(Code4Bots Pvt Ltd)**


**Code4Bots Pvt Ltd**

**AIC-BHU 5th Floor**

**Phone: 9149553564**

**Inquiry: ceo@codingjr.online**