

Prompt Engineering Internship Portfolio

Internship Title: AI Research Intern

Organization: CodeJR

Duration: 18/02/24 to 18/04/24

Focus Area: Prompt Engineering for Generative AI Models (ChatGPT)

1. Overview of Work
2. Key Contributions
3. Prompt Examples and Iterations
4. Tools and Platforms Used
5. Outcomes
6. My Analysis

Objective:

To evaluate how different large language models (ChatGPT, Claude AI, and Microsoft Copilot) interpret and respond to the same prompts, thereby understanding their reasoning approach, tone adaptation, analogy selection, technical depth, and audience awareness.

Context:

I designed two prompts to test how AI models cater their responses based on audience complexity and instructional depth.

- **Prompt 1:** "Explain recursion" (target: general audience/beginners)
- **Prompt 2:** "Explain recursion to a second-year CS student" (target: intermediate, academic tone expected)

These prompts were tested across:

- **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 and Audience Adaptation**
 - **Analogies Used**
 - **Code/Example Inclusion**
 - **Technical Concepts Explained**
 - **Output Explanation Depth**
 - **Engagement/Clarity**
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Findings Summary:

✅ Prompt 1 - “Explain Recursion” (General Audience)

- **ChatGPT** used a **Matryoshka doll analogy** and Python factorial code to simplify recursion.
- **Claude** chose a **plate stack analogy**, slightly more abstract.
- **Copilot** opted for a **book stack** metaphor, maintaining beginner friendliness.

According to me:

All three provided valid, readable answers, but **ChatGPT** gave a more instructional breakdown, while **Claude** was brief, and **Copilot** balanced code with creativity.

✅ Prompt 2 - “Explain Recursion to a 2nd-Year CS Student”

- **ChatGPT** leaned into **technical control and memory management**, offering deeper recursion insights.
- **Claude** leaned **mathematical (Fibonacci)** and emphasized **call stack dynamics**.
- **Copilot** offered a highly **engaging real-world analogy (family dinner call chain)**, combining creativity with conceptual accuracy.

According to me:

Copilot stood out for tone adaptation and relatability. **ChatGPT** remained educational and grounded, while **Claude** favored abstraction and mathematical thinking.

Insight:

This exercise highlights how **prompt design affects model output**, and how **different AIs vary in tone, teaching style, and analogy use**, even with the same prompt. Such comparison is essential for anyone working in:

- Education Technology
 - AI content design
 - UX writing
 - Prompt engineering
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How This Adds Value to My Prompt Portfolio:

- Demonstrates an understanding of **prompt framing for different audiences**
 - Shows ability to **evaluate AI reasoning behavior**
 - Reflects **critical thinking** and communication design instincts
 - Adds a unique lens on **model personality and style adaptation**
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Note: This document serves as a retrospective portfolio of my contributions and learnings.

Certificate



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,

A handwritten signature in blue ink, appearing to read "Sumit Bhat".

Sumit Bhat
Founder
Coding Jr
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