

## Role Prompting for Medical Contexts

**Role prompting** assigns an expert persona to AI to elicit more accurate and contextually appropriate responses.



### Clinical Specialist

Role of a specialist in a specific clinical field

*"You are a cardiologist with 15 years of experience..."*



### Research Analyst

Expert in medical research and literature analysis

*"You are a medical researcher analyzing clinical trials..."*



### Pharmacologist

Expert in drug actions and interactions

*"You are a clinical pharmacologist evaluating drug interactions..."*



### Medical Coder

Expert in medical coding and classification

*"You are a certified medical coder specializing in ICD-10..."*

### Performance Difference (Role-based vs. Generic Prompts)

Diagnostic Accuracy:

**+18%**

Response Relevance:

**+25%**

Technical Terminology:

**+32%**

Context Understanding:

**+22%**