Lecture 6: Chain-of-Thought for Clinical Reasoning

Part 1
Reasoning Fundamentals

- Clinical Reasoning Process
- Diagnostic Reasoning Chains
- Zero-Shot CoT Medical
- Few-Shot CoT Examples
- Self-Consistency Voting
- Reasoning Path Selection
- Medical Knowledge Integration

Part 2
Advanced CoT Methods

- Tree of Thoughts Medical
- Graph of Thoughts
- Differential Diagnosis Trees
- Bayesian Reasoning Integration
- Uncertainty Propagation
- Counterfactual Reasoning

Part 3
Clinical Applications

- Emergency Triage CoT
- Treatment Planning Chains
- Drug Interaction Reasoning
- Lab Result Interpretation
- Clinical Note Generation
- Error Analysis Patterns
- Reasoning Verification
- Performance Comparison
- Case Studies Analysis
- Hands-on Implementation
- Best Practices Guidelines