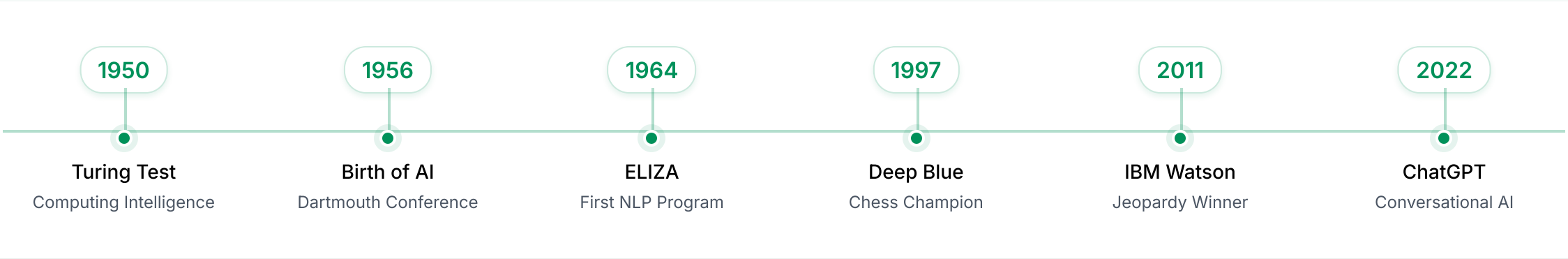
Overview of AI

Understanding AI in Today's Business World

The Evolution of Artificial Intelligence

A journey through the major breakthroughs and milestones



Foundation Era

1950-1969

Early theoretical work and basic concepts established. Focus on problem-solving.

Knowledge Era

1970-1999

Development of expert systems and real-world AI applications.

Modern Era

2000-Present

Deep learning revolution and widespread AI adoption.

Supervised vs. Unsupervised Learning

Two fundamental approaches to machine learning

Supervised Learning

Learning with labeled data and known outcomes

Examples

- Email spam detection
- Credit card fraud detection
- Customer churn prediction

Key Features

- Known outcome
- Labeled data
- Direct feedback

Unsupervised Learning

Finding patterns in unlabeled data

Examples

- Customer segmentation
- Recommendation systems
- Anomaly detection

Key Features

- Pattern discovery
- Unlabeled data
- Self-organized learning

Real-World Impact

Prediction Tasks

Majority of businesses leverage supervised learning for accurate predictions and decision-making

Customer Insights

Growing adoption of unsupervised learning for discovering customer patterns and behaviors

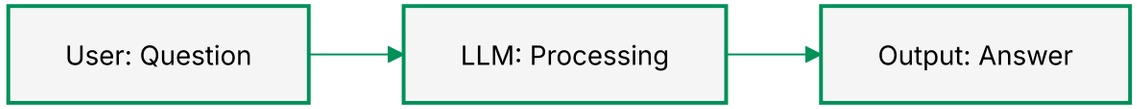
Efficiency Gains

Significant improvements in decision-making speed through ML automation

ChatGPT-based Chatbot

Transforming customer interactions with AI-powered conversations

How It Works



Key Benefits

- 24/7 Availability
- Instant Responses
- Multilingual Support

Limitations

- Context Boundaries
- Non-specific domain knowledge
- Privacy Concerns

Sample Interaction

User: What is the capital of France?

ChatBot: The capital of France is Paris

Business Impact

Customer Satisfaction

High satisfaction rates

Response Speed

Near-instant responses to customer inquiries

Operational Efficiency

Reduction in operational costs

The Three Pillars of Generative AI

Understanding the core components that power modern AI systems

Prompts

The instructions that guide AI responses

Key Elements

- Clear Instructions
- Specific Details
- Desired Format

Context

The background information that shapes understanding

Components

- Conversation History
- Knowledge Base

LLMs

Large Language Models that power the system

Capabilities

- Natural Language

How They Work Together

→ Prompts guide the LLM's response, while context ensures relevance and accuracy. Together, these pillars enable AI to generate human-like, contextually appropriate outputs.