



# Delphi and AI

---

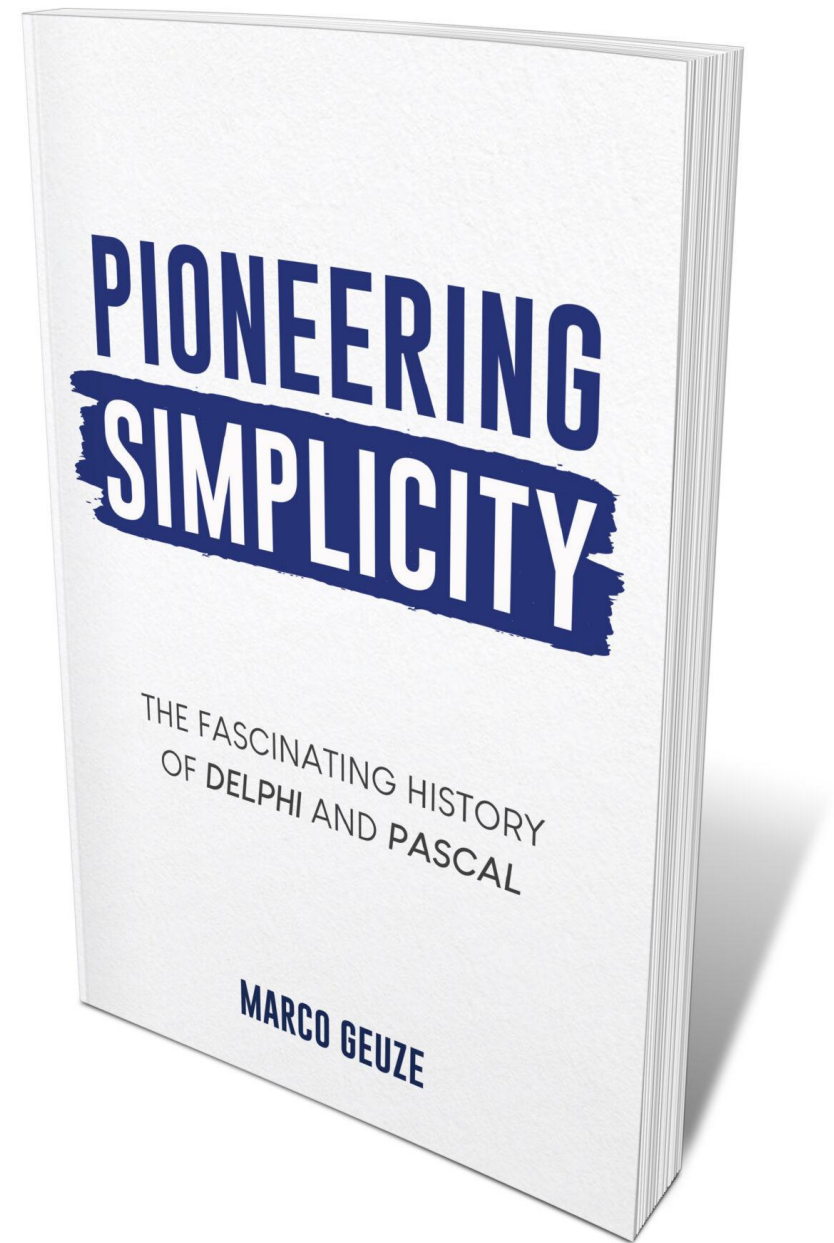
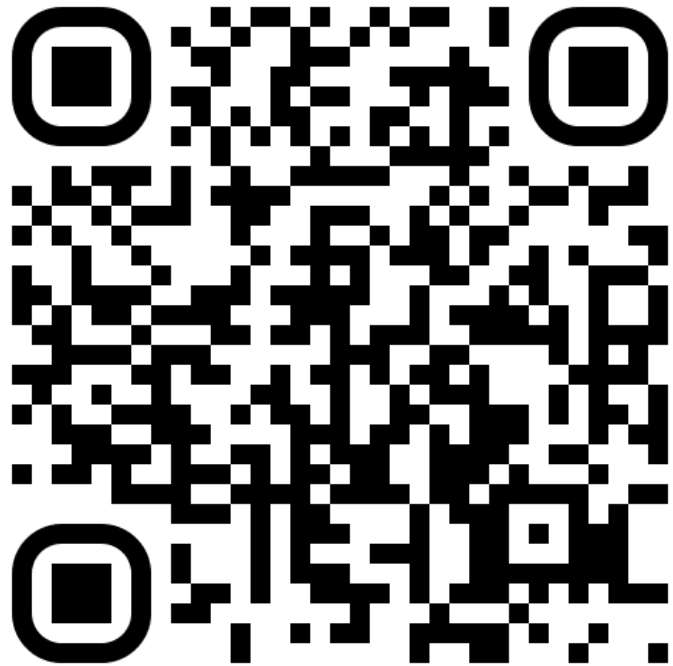
Beyond the hype - Delphi, AI and the future

Marco Geuze

# GDK Software

- Marco Geuze – Embarcadero MVP
- Long-time Delphi developer
- Founder of GDK Software:
  - +30 Delphi developers worldwide
  - Offices in NL, UK, US and Brazil
  - Codolex
  - Delphi Summit -> June 2025 <https://delphisummit.com>

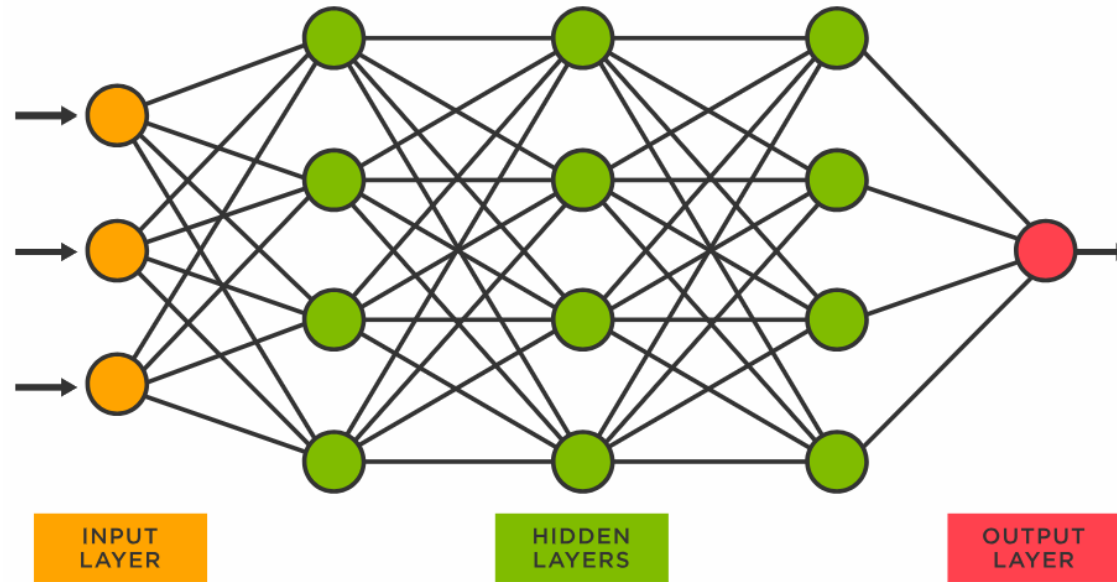
# Pioneering Simplicity



# Concepts

- LLM
- Prompting
- Embeddings
- Vector databases
- Retrieval-Augmented Generation
- Agents
- Fine-tuning

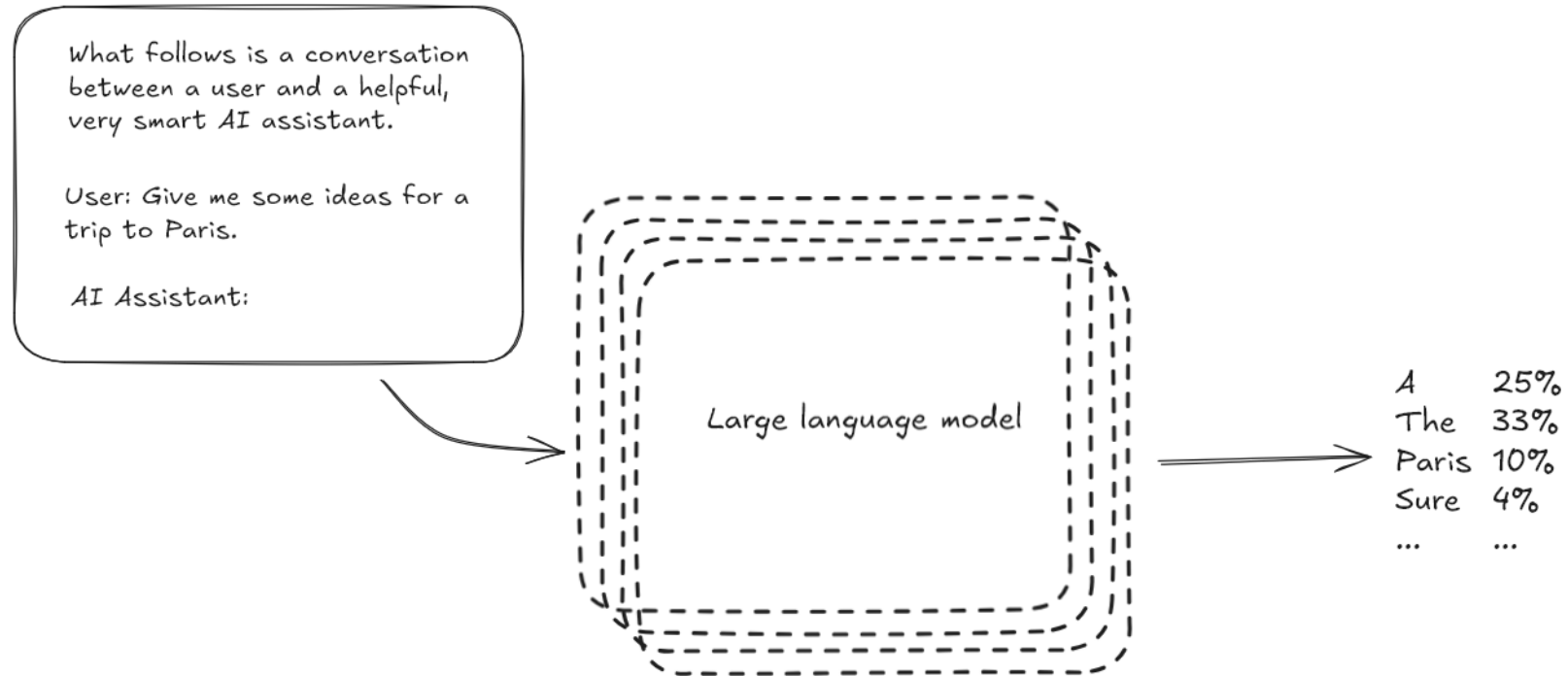
# Large Language Models



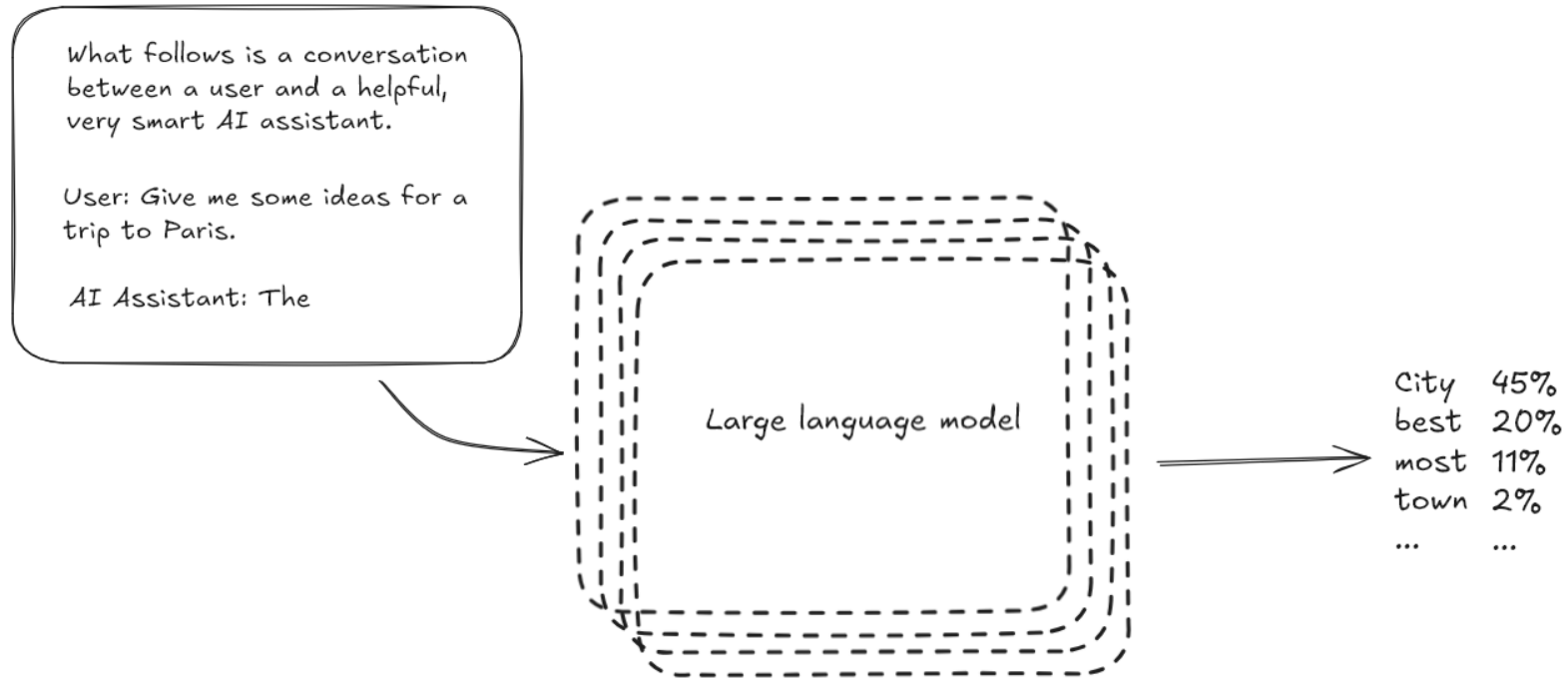
# Large Language Models

- Pre-training → Base Model
- Supervised Fine-Tuning (SFT) → Instruct Model (via special tokens like <|user|>)
- RLHP (Reinforcement Learning with Human Feedback)

# Large Language Models



# Large Language Models





# Large Language Models

Tokens

Vectors

Token count

9

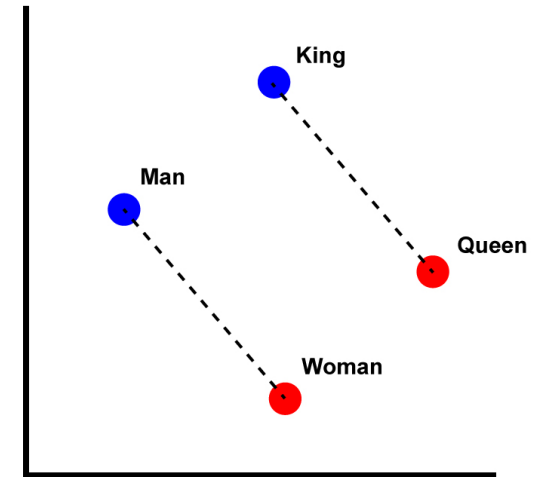
This is the AI Training for Delphi developers

2028, 374, 279, 15592, 16543, 369, 7462, 17247, 13707

# Large Language Models

## Embeddings:

- Numerical representations of text in vector space
- Capture semantic meaning and relationships
- Allow computers to "understand" similarity between concepts
- Example: "king" - "man" + "woman"  $\approx$  "queen"



# Getting started

- Local
  - Ollama
  - LangChain
  - llama.cpp
- Cloud based
  - RunPod
  - Hugging Face
  - Open AI
  - Claude AI
  - And many, many more

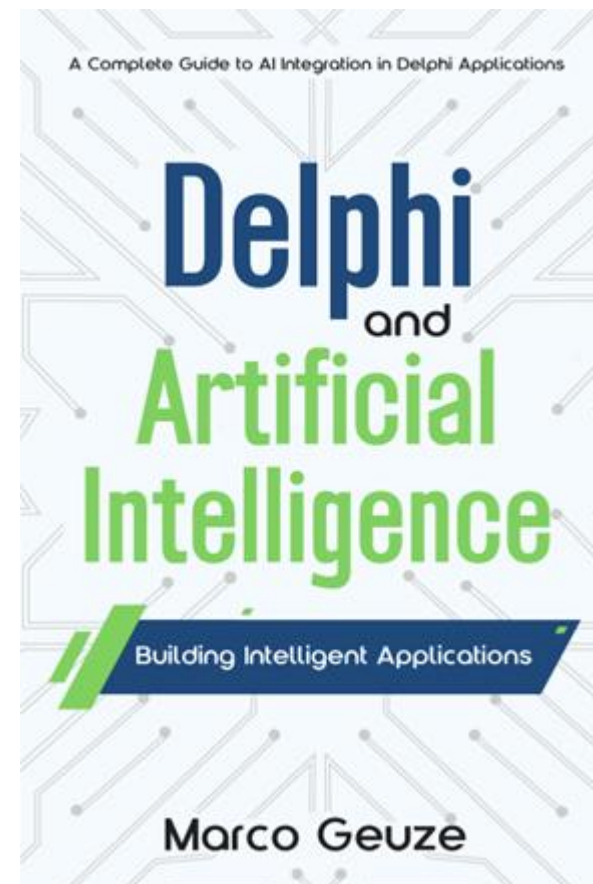
# Large Language Models

Demo:

- Working with Ollama
- Embeddings and vector databases
- RAG

# AI Training – 23 May in London

[training.gdksoftware.com](https://training.gdksoftware.com)



# Q&A

