River Publishers

Generative AI

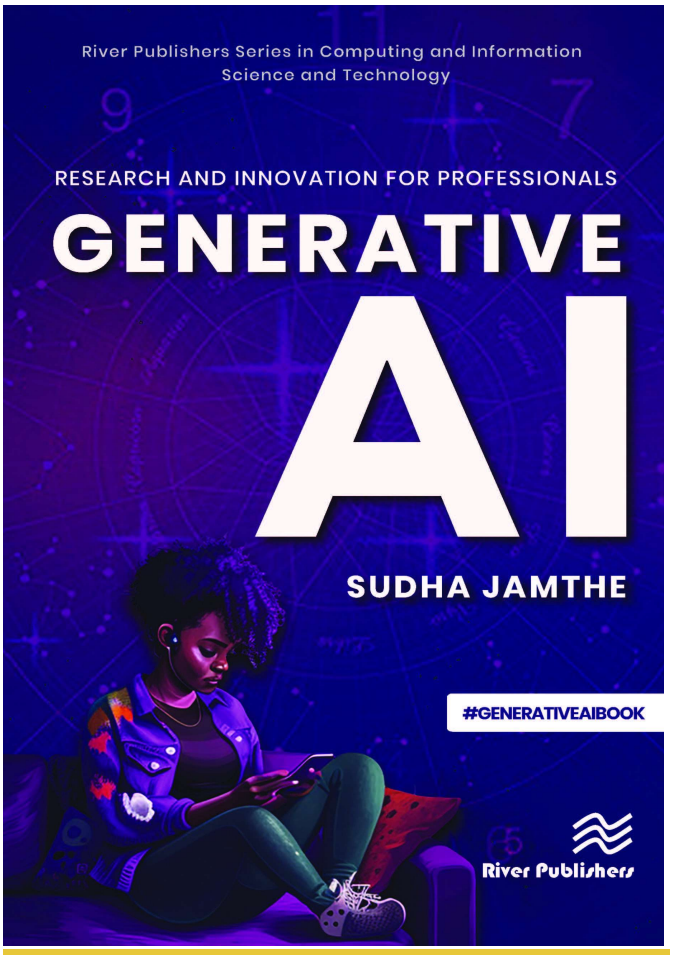
Research and Innovation for Professionals

Author: Sudha Jamthe, Business School of AI, USA

Generative AI Explained demystifies LLMs, foundation models, and diffusion networks in simple terms. It covers RAG, fine-tuning, hallucination risks, and ethical AI design. Industry impacts are analyzed (software, education, e-commerce) as well as societal challenges (bias, jobs, deepfakes). It includes API economy trends, prompt engineering, and responsible deployment frameworks.

TABLE OF CONTENTS

- What is Generative AI, and Why Does it Matter?
-
- Technology of Foundation Models, General Adversarial Networks (GAN), Synthetic Data, Attention, Diffusion Models
- Generative AI Models, Models Explained in English, Research in GenAI, Model Modality, Semi-Supervised AI
- Large Language Models, LLM, How LLM Works, State of research of LLMs, Ethical Implications of Building LLMs
- LLM for Global Languages, Country-specific LLMs, Mistral, Aya
- What is Hallucination, Causes, and the State of Research of Hallucination in LLMs
- Data Fine-tuning and Retrieval Augmented Generation (RAG), Difference Between RAG and Fine-tuning, State of Research of Fine-tuning and RAG
- LLM Capabilities, Reasoning Models, Q&A Models, State of Research in Reasoning
- The API Economy, GenAI Market Trends, GenAI Applications
- Industries impacted by GenAi: Software Engineering, Education, e-commerce, Customer Support
- Ethical Product Design with GenAI, Prompt Engineering, and GenAI Middleware
- Enterprise GenAI, Data Modeling, Automated Buildings
- Ethical Responsible GenAI, which Industries are Impacted More by GenAI, Automation and Jobs, Gender Bias and Lack of Explainability
- AI and Social Change, Anthropomorphism, Voice Clones and Deep Fakes, Competencies Needed for Success with GenAI
- Appendix: Models for Reference, Research References, and Ethical Governance Frameworks



River Publishers Series in Computing and Information Science and Technology

ISBN: 9788743808138
e-ISBN: 9788743808121
Available From: February 2026
Price: $ 140.00

KEYWORDS:
AI, artificial intelligence, technology, innovation, AI research, Generative AI, LLM, large language models, foundation models, data science

www.riverpublishers.com
marketing@riverpublishers.com