

# How to become an AI engineer

Tick each resource as you finish it. Links are clickable. English alternatives to the Hindi playlists are listed in the post.

## STAGE 1

### Python, maths and data

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|                          |                                      |            |
|--------------------------|--------------------------------------|------------|
| <input type="checkbox"/> | 100 Days of Python Programming       | 40 videos  |
| <input type="checkbox"/> | NumPy                                | 13 videos  |
| <input type="checkbox"/> | Pandas                               | 21 videos  |
| <input type="checkbox"/> | Complete SQL Course for Data Science | 5 h 42 min |
| <input type="checkbox"/> | Git and GitHub for Beginners         | 1 h 8 min  |
| <input type="checkbox"/> | Essence of Linear Algebra            | 16 videos  |
| <input type="checkbox"/> | Essence of Calculus                  | 12 videos  |
| <input type="checkbox"/> | Statistics Fundamentals              | 62 videos  |

## STAGE 2

### Machine learning and deep learning

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|                          |                                           |              |
|--------------------------|-------------------------------------------|--------------|
| <input type="checkbox"/> | 100 Days of Machine Learning              | 134 videos   |
| <input type="checkbox"/> | Neural Networks                           | 9 videos     |
| <input type="checkbox"/> | 100 Days of Deep Learning                 | 84 videos    |
| <input type="checkbox"/> | Complete Transformers for NLP in one shot | 1 long video |

## STAGE 3

### How LLMs work, and prompting

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|                          |                                           |                |
|--------------------------|-------------------------------------------|----------------|
| <input type="checkbox"/> | Intro to Large Language Models            | 59 min         |
| <input type="checkbox"/> | Deep Dive into LLMs like ChatGPT          | 3 h 31 min     |
| <input type="checkbox"/> | Neural Networks: Zero to Hero             | 10 long videos |
| <input type="checkbox"/> | ChatGPT Prompt Engineering for Developers | 1.5 h          |
| <input type="checkbox"/> | Interactive Prompt Engineering Tutorial   | 9 chapters     |

## STAGE 4

### Building with LLMs

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|                          |                                 |           |
|--------------------------|---------------------------------|-----------|
| <input type="checkbox"/> | Generative AI using LangChain   | 21 videos |
| <input type="checkbox"/> | RAG playlist                    | 9 videos  |
| <input type="checkbox"/> | Agentic AI using LangGraph      | 28 videos |
| <input type="checkbox"/> | Agentic AI Projects             | 7 videos  |
| <input type="checkbox"/> | Agentic AI projects: End-to-End | 42 videos |

## STAGE 5

### AI engineering tools, open models and fine-tuning

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|                          |                                      |             |
|--------------------------|--------------------------------------|-------------|
| <input type="checkbox"/> | Agentic Coding using Claude Code     | 15 videos   |
| <input type="checkbox"/> | Model Context Protocol (MCP Trilogy) | 8 videos    |
| <input type="checkbox"/> | FastAPI for Machine Learning         | 13 videos   |
| <input type="checkbox"/> | Ollama Masterclass 2026              | 2 h 49 min  |
| <input type="checkbox"/> | Hugging Face LLM Course              | 12 chapters |
| <input type="checkbox"/> | Finetuning LLM: LoRA and QLoRA       | 26 min      |
| <input type="checkbox"/> | Fine Tuning LLM Models               | 2 h 37 min  |

## STAGE 6

**Production and cloud**

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|------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <input type="checkbox"/> LLM Evaluation                                                                                            | 19 videos         |
| <input type="checkbox"/> LLMOps Course: Build, Deploy and Scale RAG AI Systems                                                     | 26 videos         |
| <input type="checkbox"/> LLM Gateways: explained and crash course                                                                  | 2 videos          |
| <input type="checkbox"/> Complete AI Security Course in 8 Hours                                                                    | 1 long video      |
| <input type="checkbox"/> LLM Tracing and Observability                                                                             | 20 videos         |
| <input type="checkbox"/> Loop Engineering and Harness Engineering Crash Course                                                     | 3 h 35 min        |
| <input type="checkbox"/> Pick one cloud: Amazon Bedrock Getting Started, Microsoft Foundry or Google Introduction to Generative AI | 1 to 5 h          |
| <input type="checkbox"/> AI Engineering and its free resources                                                                     | 534-page book     |
| <input type="checkbox"/> AI and GenAI: Complete Guides and Series                                                                  | 11 written series |

## AFTER STAGE 6

**Final project and keeping up**

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- ☐ Final project: one application that uses every stage

## OPTIONAL - FOR INFRASTRUCTURE ENGINEERS

**Infra track: cloud, Kubernetes and AI infrastructure**

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|--------------------------------------------------------------------------------------------------------------|-----------------|
| <input type="checkbox"/> Linux Zero to Hero                                                                  | 13 videos       |
| <input type="checkbox"/> Networking Fundamentals                                                             | 3 videos        |
| <input type="checkbox"/> Docker                                                                              | 15 videos       |
| <input type="checkbox"/> Kubernetes                                                                          | 45 videos       |
| <input type="checkbox"/> Troubleshooting Kubernetes                                                          | 6 videos        |
| <input type="checkbox"/> Ansible Zero to Hero                                                                | 11 videos       |
| <input type="checkbox"/> Pick one cloud: AWS Zero to Hero, Azure Zero to Hero or GCP Zero to Hero in 20 Days | 16 to 40 videos |
| <input type="checkbox"/> AI Assisted DevOps                                                                  | 15 videos       |
| <input type="checkbox"/> What is vLLM? and Understanding vLLM with a hands-on demo                           | 5 min; 15 min   |
| <input type="checkbox"/> NVIDIA GPU Operator                                                                 | docs            |
| <input type="checkbox"/> Cloud Native Inference at Scale with KServe                                         | 18 min          |
| <input type="checkbox"/> Large Scale Distributed LLM Inference with llm-d and Kubernetes                     | 1 h 44 min      |