

90-Day GenAI Engineer Curriculum (Notion-Ready)

Profile: MCA graduate | Python-ready | 4-year career gap (upskilling focus)

Daily Commitment: ~8 hours/day

How to Use This in Notion

- Create one page = **1 day** (duplicate template)
 - Tick checklists as you progress
 - Add GitHub links under **Daily Output**
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Daily Template (Duplicate This)

Day X - Title

- 🎯 Goal:
 - 📚 Learn (Links):
 - 💻 Hands-on:
 - 🛠️ Project Work:
 - 🧠 Notes:
 - 📌 Daily Output (GitHub/Notes):
 - ⌚ Time Spent:
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PHASE 1 - ML + DATA FOUNDATION (Day 1-12)

Day 1 - AI, ML, DL, GenAI Overview

- Learn:
 - Krish Naik - AI vs ML vs DL vs GenAI (YouTube)
 - Towards Data Science - AI vs ML article
- Hands-on:
 - Setup venv, GitHub repo structure
- Output:
 - README: AI career roadmap

Day 2 – NumPy for AI

- Learn:
 - Codebasics – NumPy tutorial
 - NumPy official docs
- Hands-on:
 - Vectorized operations notebook

Day 3 – Pandas for AI

- Learn:
 - Corey Schafer – Pandas
 - Kaggle Learn: Pandas
- Hands-on:
 - Clean real CSV dataset

Day 4 – Data Visualization

- Learn:
 - Corey Schafer – Matplotlib
 - Kaggle Visualization
- Hands-on:
 - Plot insights

Day 5 – Statistics for ML

- Learn:
 - StatQuest – Mean, Std, Bias-Variance
- Hands-on:
 - Stats revision notebook

Day 6 – ML Algorithms Overview

- Learn:
 - Krish Naik – ML algorithms
- Hands-on:
 - Algorithm selection notes

Day 7 – ML Pipelines

- Learn:
 - Codebasics – sklearn pipeline

- Hands-on:
 - Train-test-evaluate pipeline

Day 8 – Feature Engineering

- Learn:
 - Krish Naik – Feature Engineering
 - Kaggle Feature Engineering

Day 9 – Model Evaluation

- Learn:
 - StatQuest – Precision/Recall/F1

Day 10 – Hyperparameter Tuning

- Learn:
 - Krish Naik – GridSearchCV

Day 11 – Explainable AI

- Learn:
 - Codebasics – SHAP

Day 12 – PROJECT 1

AI Resume Screening System

- Dataset: Kaggle resumes
- Output: GitHub repo + README

PHASE 2 – NLP + DEEP LEARNING (Day 13–25)

Day 13 – NLP Basics

- Learn:
 - Krish Naik – NLP playlist

Day 14 – TF-IDF & Embeddings

- Learn:
 - StatQuest – TF-IDF

Day 15 – Text Classification

- Learn:
 - Codebasics – Spam classifier

Day 16 – Word Embeddings

- Learn:
 - Aladdin Persson – Word2Vec

Day 17 – Neural Networks Basics

- Learn:
 - StatQuest + 3Blue1Brown

Day 18 – PyTorch Basics

- Learn:
 - Aladdin Persson – PyTorch

Day 19 – Deep NLP Model

- Learn:
 - Hugging Face tutorials

Day 20 – RNN & LSTM

- Learn:
 - StatQuest – RNN/LSTM

Day 21 – Transformers

- Learn:
 - Jay Alammar – Illustrated Transformer

Day 22 – Hugging Face Ecosystem

- Learn:
 - HuggingFace Course

Day 23 – Fine-tuning Transformers

- Learn:
 - HF fine-tuning guide

Day 24 – Evaluation

- Learn:
 - HF evaluation docs

Day 25 – PROJECT 2

Customer Feedback Intelligence System

PHASE 3 – GENAI CORE (Day 26–55)

Day 26 – LLM Internals

- Learn:
 - Jay Alammar – LLMs
 - Andrej Karpathy

Day 27 – Prompt Engineering

- Learn:
 - OpenAI Prompt Guide
 - DeepLearning.AI Prompt course

Day 28 – Advanced Prompting

- Learn:
 - Chain-of-Thought, ReAct blogs

Day 29 – OpenAI API

- Learn:
 - OpenAI official docs

Day 30 – Chatbot

- Hands-on:
 - Custom chatbot with memory

Day 31 – LangChain Core

- Learn:
 - LangChain docs

Day 32 – Chains & Memory

- Learn:
 - LangChain memory

Day 33 – Embeddings

- Learn:
 - OpenAI embeddings docs

Day 34 – Vector DBs

- Learn:
 - ChromaDB / FAISS

Day 35 – RAG

- Learn:
 - Pinecone RAG guide

Day 36-40 - PROJECT 3

Enterprise Document Q&A (RAG)

Day 41 - Fine-tuning vs Prompting

- Learn:
 - OpenAI fine-tuning docs

Day 42 - Function Calling

- Learn:
 - OpenAI tools docs

Day 43 - AI Agents

- Learn:
 - LangChain Agents

Day 44 - Multi-Agent Systems

- Learn:
 - CrewAI docs

Day 45-55 - PROJECT 4

AI Research Assistant (Agents + RAG)

PHASE 4 - PRODUCTION & JOB READY (Day 56-90)

Day 56 - FastAPI

- Learn:
 - FastAPI docs

Day 57 - Backend Architecture

- Learn:
 - LLM system design blogs

Day 58 - Security

- Learn:
 - OWASP API basics

Day 59 - Docker

- Learn:
 - TechWorld with Nana

Day 60 - Cloud Basics

- Learn:
 - AWS Free Tier tutorials

Day 61-65 - CAPSTONE PROJECT





AI Customer Support Agent

- RAG + Agents + Dashboard

Day 66-90 - INTERVIEW & JOB

- Resume optimization
- Mock interviews
- Applications & referrals

Final Deliverables

-  5 GenAI Projects
-  Active GitHub
-  HR-ready resume
-  Clear career-gap story