RByte.ai AI Engineering Curriculum

Module 1: Python & Data Science Fundamentals
- Python programming basics
- Data structures and algorithms
- NumPy, Pandas, and data manipulation
- Data visualization with Matplotlib and Seaborn

Module 2: Machine Learning Foundations
- Supervised and unsupervised learning
- Model evaluation and validation
- Feature engineering
- Scikit-learn for ML implementation

Module 3: Deep Learning
- Neural network fundamentals
- TensorFlow and PyTorch
- CNN, RNN, and transformer architectures
- Computer vision and NLP applications

Module 4: Large Language Models
- LLM fundamentals and architectures
- Prompt engineering
- Fine-tuning techniques
- LLM evaluation and alignment

Module 5: GenAI Engineering
- RAG systems and vector databases
- Multi-agent systems with LangGraph
- Tool use and function calling
- Production deployment of AI systems

Module 6: Career Transition
- Portfolio development
- Interview preparation