Navigating the LLM Landscape: A Practical Implementation Guide for Engineers

Join us for a focused, engineer-friendly deep-dive into modern Large Language Models (LLMs) and their practical applications in network engineering, operations, and automation.
This weekly workshop series is designed to give participants hands-on knowledge, real deployment insights, and actionable skills.

Instructor

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Who Should Join?

Network engineers, cloud engineers, systems operators, students in ICT, and anyone interested in practical AI applications in technical operations.

Workshop Topics

1. Prompt Engineering
Learn how to craft effective prompts to get accurate, reliable, and context-aware outputs from LLMs.
We cover:

- Prompt structure and templates
- System vs. user instructions
- Prompt optimization techniques
- Avoiding hallucinations

2. RAG (Retrieval-Augmented Generation) Pipelines
Understand how to integrate your own data sources with LLMs to deliver accurate and domain-specific responses.

We cover:

- Vector embeddings
- Knowledge bases
- Architecture patterns for production RAG

3. Fine-tuning LLMs
Dive into customizing LLMs for your environment, dataset, or operational workflows.
We cover:

- Types of fine-tuning (SFT, LoRA, QLoRA)
- Data preparation
- Training workflows
- Evaluating and validating tuned models

4. AI Agents
Explore how AI agents can automate tasks, perform reasoning, and integrate with systems and APIs.
We cover:

- Multi-step task execution
- Tool calling
- Agent architectures
- Practical use cases for NOGs and ISPs

Why Attend?

- Hands-on, practical focus
- Real examples from engineering and operations
- Learn how to deploy and use LLMs effectively in your environment
- Open discussion, demos, and shared learning with the sdnog community

Session's record

https://drive.google.com/file/d/1_FUkQgAddEermA45m-1FYyx8tNQi6Itx/view?usp=share_link

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Revision #5
Created 2025-11-17 06:19:25 UTC by sara
Updated 2025-12-02 08:29:53 UTC by sara