

# Knowledge Summarization : Build your own research assistant with an LLM

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## Registration Link

<https://forms.office.com/r/ePNhDnUPn9>

## Abstract

This workshop will bring together researchers, developers, and enthusiasts to explore the potential of Large Language Models (LLMs) in automating research paper summarization, all done in a local computer. By leveraging open-source and very capable LLMs and Retrieval-Augmented Generation (RAGs), we'll create a knowledge synthesizer that can aggregate insights from 20 pre-selected research papers. Our goal is to build a robust system that can synthesize knowledge from multiple papers (pdf files), stored locally on the machine.

## Target Audience

1. Researchers in AI, NLP, and related fields seeking to leverage LLMs for research paper summarization
2. Developers interested in exploring the potential of RAGs and LLMs for automating knowledge synthesis
3. Students and early-career researchers looking to gain hands-on experience with large language models and rule-based aggregators with RAGs

## Pre-requisites

1. Basic understanding of programming concepts (e.g., Python).
2. Familiarity with popular NLP libraries and frameworks (e.g., PyTorch).
3. Some Knowledge of data preprocessing and normalization techniques for text data.
4. Willingness to learn about LLMs, RAGs, text summarization.

# Tutorial 1



## Technical requirements

Laptop with Python 3.10+ installed, Git version control and your favorite Integrated Development Environment (IDE) for writing code (PyCharm, Vscod, vim, or other). (optional) a Mac equipment no older than 2019, or, a windows/linux system with any GPU.