

Call for Contributions

For *6G White Paper on LLMs in the 6G-Enabled Computing Continuum*



FLAGSHIP
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OF OULU

We call for our 6G researchers and collaborators to contribute to the upcoming 6G White Paper on LLMs in the 6G-Enabled Computing Continuum. The current draft input material is available at arXiv¹.

Contributions are welcome especially, but not limited to, on the following topics:

- **Application Areas:** Insights into the value of this technology in various application areas utilizing the 6G computing continuum. Contributions should focus on practical implications and the transformative potential of LLMs in these domains.
- **Security Aspects:** Analysis of security challenges and solutions in the context of LLMs within the 6G computing continuum.
- **Sustainability and Energy Consumption:** Exploring the environmental impact and energy efficiency of deploying LLMs in the 6G computing continuum.
- **Distribution Strategies:** Discussing the distribution mechanisms of LLMs in the 6G computing continuum.
- **Computation Requirements:** Contributions could cover for example:
 - **Edge/Device Computation:** The dynamics and challenges of computation at the edge and on-device.
 - **Novel Hardware Requirements:** Insights on hardware innovations tailored for LLMs.
- **Lifecycle Management of Models:** Different stages like data collection, initial training, fine-tuning, monitoring, and model updating.
- **LLM Operations (LLM Ops):** Distinctions from traditional MLOps and DevOps. Variances in LLM model types and their management.
- **Execution Models:** Discussion on private vs. public deployment and various distribution models.
- **Regulation:** Regulatory oversight required when deploying LLMs on the 6G computing continuum.

Important dates:

- **Abstract DL:** Jan 31st, 2024. Provide a short description of your planned contribution and estimated page count (2-5 pages preferred).
- **Contribution DL:** Feb 28th, 2024.
- **Publication:** Apr 9th, 2024 (6G Symposium, Levi, Finland).

We encourage 6G researchers and collaborators to contribute their expertise and perspectives to enrich this white paper. Your insights will play a pivotal role in shaping a comprehensive and multi-faceted understanding of LLMs in the emerging 6G landscape.

6G White Papers have been well received in the research community. Since the world's first 6G White Paper in September 2019, with the subsequent ones during 2020 and 2021, these papers have been downloaded over a million times.

Please send your abstract, contributions, and questions to lauri.loven@oulu.fi and roberto.morabito@helsinki.fi.

¹ <https://arxiv.org/pdf/2311.05842.pdf>