2025 Jelinek Workshop on Speech and Language Technologies

We are pleased to invite one page research proposals for an

Eight Week Residential Summer Research Workshop

at Brno University of Technology in Brno, Czech Republic,

from June 9 to August 1, 2025 (Tentative)

CALL FOR PROPOSALS

Deadline: Tuesday, October 15, 2024.

We invite one-page research proposals for the annual Frederick Jelinek Memorial Summer Workshop on Speech and Language Technologies (JSALT). Proposals should advance *human language technologies* (HLT) or related areas of *artificial intelligence* (AI) including *computer vision* and *robotics*, or enable their applications, e.g. in *healthcare* or *education*. Proposals may address emerging or long-standing challenges. Areas of interest in 2025 include but are <u>not</u> **limited to**

TEXT UNDERSTANDING: Challenges of large language models (LLMs), including auditability of training data, high cost of pretraining & fine-tuning, interpretability, explainability, prompt-brittleness, hallucinations & misaligned behavior; Machine translation for informal, dialectal and low-resource languages.

SPEECH UNDERSTANDING: Robust models for understanding **challenging audio**, including dialectal, code-mixed and far-field speech; Speaker identity, voice anonymization, deep-fake generation and detection; Synthesizing spoken conversations for model training in new languages, domains and acoustic conditions.

MULTIMODAL UNDERSTANDING: Multimodal foundation models (including LLMs) for audio, text, images, handwriting and machine-print; Application of multimodal models in education, scientific discovery, health monitoring and healthcare delivery; Embodied AI.

RESPONSIBLE AI: Privacy-preserving model training and inference for HLT/AI; Designing HLT/AI systems to be equitable/fair to all demographics; Preventing/Mitigating harmful behavior of HLT/AI models; Securing HLT/AI models against adversarial actors and operating conditions. Research topics selected for investigation by teams in past workshops should serve as good examples for prospective proposers: https://www.clsp.jhu.edu/workshops.

All received proposals will be screened for *basic feasibility*, and results of this screening will be communicated by **October 18**, 2024. Authors of feasible proposals will be invited to an interactive peer-review meeting in *Baltimore* on **November 15-17**, 2024. At this meeting,

proposals will be peer-reviewed in depth, revised iteratively and interactively to address any concerns and to incorporate new ideas from the floor, and 3-4 topics will eventually be selected for pursuit in Summer 2025.

These workshops aim to bring together "dream teams" to collaboratively pursue research on the selected topics: teams that are interdisciplinary and diverse in many ways including institutionally, demographically, and seniority of researchers. Authors of successful proposals typically lead these teams, and another 3-5 senior researchers from academia, industry and government join each team. 3-5 PhD students familiar with the topic are then selected, based on their demonstrated research performance, in consultation with the senior researchers. Finally, a few outstanding undergraduates, typically rising-seniors from a variety of majors, are selected via a nationwide search.

If you are interested in leading a dream team in JSALT 2025, please **submit a one-page research proposal** for consideration, detailing the problem to be addressed. *If your proposal (or a modified version of it) is chosen for pursuit next summer, we expect you to be resident at the workshop for 6+ weeks*. We are not asking for an ironclad commitment at this juncture, just a good faith assertion that if a topic advocated by you is chosen, you will actively pursue it with us. We in turn will make a good faith effort to accommodate any personal/logistical needs to enable your travel to, residence at and participation in the workshop, including airfare, housing, meals and incidentals.

The peer-review meeting and summer workshop will be *in-person* events.

Please submit proposals to <u>jsalt2025@jh.edu</u> by Tuesday, October 15, 2024.