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HARNESSING LARGE LANGUAGE MODELS FOR PREDICTING MOBILITY MODES

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Understanding transportation modes is essential for sustainable urban planning and mobility behavior analysis. Traditional approaches rely on handcrafted features and machine learning models trained on GPS trajectory data. However, these methods require extensive data preparation and model training. In this presentation, we explore the potential of large language models (LLMs) as zero-shot predictors for mobility mode classification, eliminating the need for training data altogether. We propose a pipeline that transforms enriched trajectory segments into textual prompts, enabling LLMs to perform classification without task-specific pretraining. We evaluate our approach against standard machine learning baselines using a real-life dataset. Preliminary results show that LLMs can effectively capture semantic and contextual cues from trajectory-derived features, demonstrating their promise for rapid, data-efficient mode classification. Our work provides novel insights into leveraging LLMs in the mobility domain and identifies future opportunities for their integration.