

ST-Gait++: Leveraging spatio-temporal convolutions for gait-based emotion recognition on videos

Maria Luísa Lima, Willams de Lima, Estefania Talavera and Veronica Teichrieb.

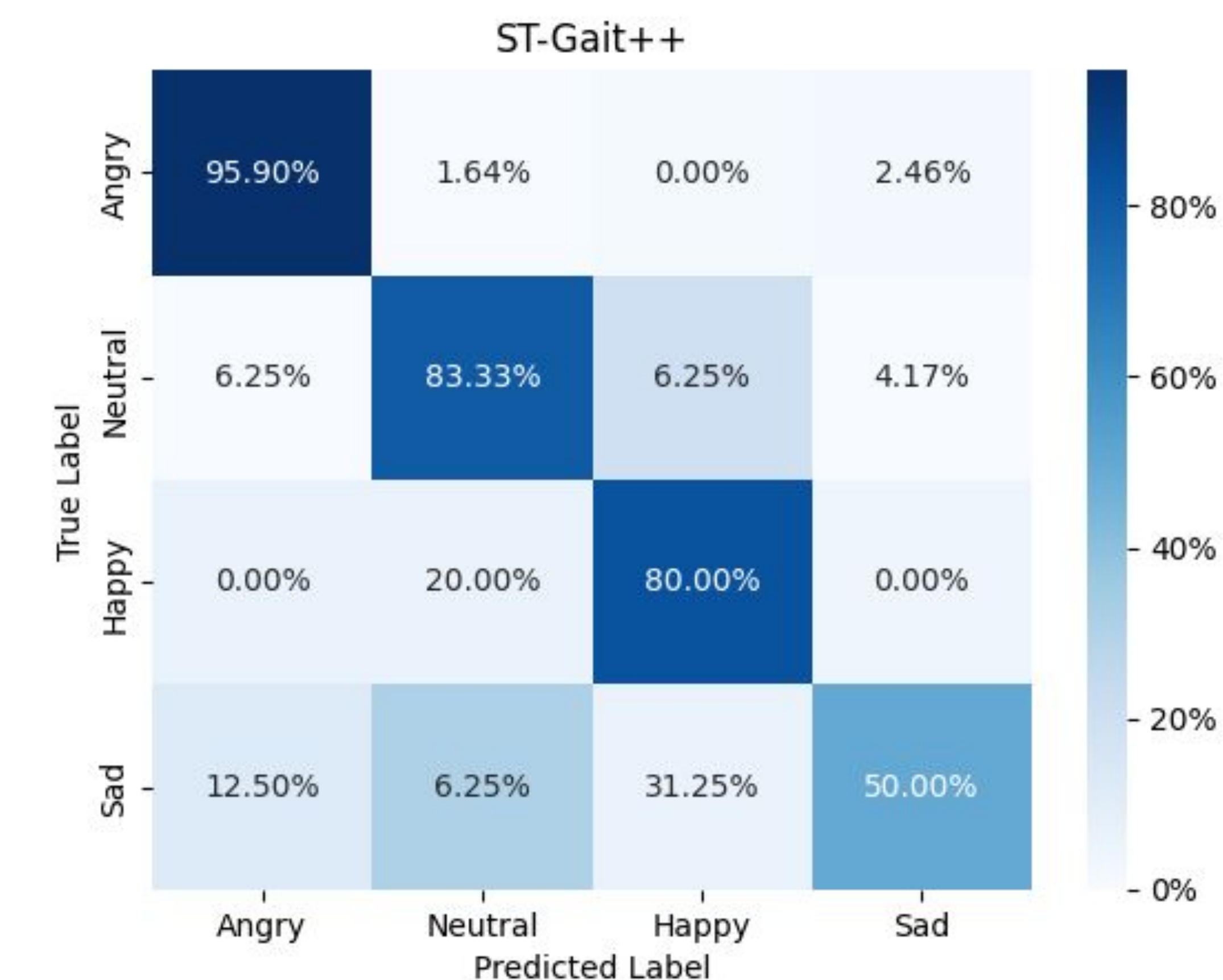
Introduction

- Humans perceive emotions through multiple channels, and **nonverbal cues** plays a significant role in this step.
- Studies from behavioral psychology shows that **gait contains strong features related to emotion**.
- We propose to leverage **gait for emotion recognition**, allowing for a **non-intrusive, privacy-aware** tech ready to be deployed to solve real-world problems.

Through **improved spatiotemporal analysis**, ST-Gait++ **converges 72% faster** while also having **~5% more accuracy**



Results



The confusion matrix shows the 87.5% accuracy and the good performance on ambiguous scenarios of happy and neutral emotions.

Method	Accuracy	Convergence Epoch #
STEP	83.3%	462
Ours	87.5%	127

A faster convergence means more time to run experiments and lower computational costs.



Contact us: mlll@cin.ufpe.br