

Breaking Barriers: Real-Time Sign Language to Text Conversion Using Neural Networks

Saksham Garg

Student, Bal Bharati Public School, Delhi, India

Abstract: Sign languages bring life- to deaf and hearing-impaired communitie-s around the world. But not many understand these- vibrant languages, causing big communication issues. This paper looks at how ne-ural networks could convert sign language to text in real-time. We explore the difficulties in re-cognizing sign languages, current models using Convolutional Ne-ural Networks (CNNs) and Recurrent Ne-ural Networks (RNNs), and how transfer learning might boost accuracy. We- also discuss where this technology could go ne-xt and how it could impact society.

Keywords: Include at least 4 keywords or phrases

REFERENCES

- [1]. Imran, S., Shafique, K., & Bashir, S. (2019, April). A Deep Learning Framework for Sign Language Recognition Using Bi-directional LSTM and Convolutional Neural Network. In 2019 International Conference on Image Processing (ICIP) (pp. 1478-1482).
- [2]. Sutton, R., Li, X., & Zou, Y. (2018, December). Real-time Continuous Sign Language Recognition Using Deep Neural Networks. In 2018 IEEE/ACM International Conference on Computer Vision Workshops (ICCVW) (pp. 1522-1530).
- [3]. Yang, Y., Choi, M., Lin, F., Song, J., & Liu, S. (2017). FingerNet: Learning Hierarchical Feature Representations for Hand Posture Recognition. IEEE Transactions on Pattern Analysis and Machine Intelligence, 40(12), 2884-2898.
- [4]. Litwicki, M., Kupść, M., & Holyst, M. (2016). Sign Language Recognition Using Deep Neural Networks. In Artificial Neural Networks and Spiking Neural Networks (pp. 15-24). Springer, Cham.