

Propuesta de Proyecto

1. Nombre Del Proyecto: Detección de Intenciones y Reconocimiento de Entidades (Slot Filling and Intent Detection)

2. Miembros Del Equipo:

- Arteaga Meléndez Daniel Martin
- Córdova Alvarado Ruben Francisco
- Tovar Galarreta Juan Carlos Alfredo

3. Conjunto De Datos A Utilizar:

- Word sequences with IOB slot tags and the intent label -
<https://github.com/yvchen/JointSLU/tree/master/data>
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4. Objetivo del Proyecto: Experimentación con metodologías del estado del arte en aprendizaje profundo aplicando buenas prácticas de investigación.

5. Artículos Científicos Relevantes:

[1] Bing Lu, Ian Lane, «Attention-Based Recurrent Neural Network Models for Joint Intent Detection and Slot Filling», 17th Annual Conference of the International Speech Communication Association, Volume 08-12-September-2016, Pages 685 - 689, 2016.

[2] Schumann R., Angkititrakul P., «Incorporating ASR Errors with Attention-Based, Jointly Trained RNN for Intent Detection and Slot Filling», IEEE International Conference on Acoustics, Speech, and Signal Processing, Volume 2018-April, Pages 6059 - 6063, 2018.

[3] Wang, Y., Tang, L., He, T., «Attention-based CNN-BLSTM networks for joint intent detection and slot filling», 17th China National Conference on Computational Linguistics, CCL 2018 and 6th International Symposium on Natural Language Processing Based on Naturally Annotated Big Data, Volume 11221 LNAI, Pages 250 - 261, 2018

[4] G. Mesnil, Y. Dauphin, K. Yao, Y. Bengio, L. Deng, D. Hakkani-Tur, X. He, L. Heck, G. Tur, D. Yu, and G. Zweig, "Using recurrent neural networks for slot filling in spoken language understanding," IEEE/ACM Transactions on Audio, Speech, and Language Processing, vol. 23, no. 3, pp. 530–539, 2015.

[5] D. Guo, G. Tur, W. Yih and G. Zweig, "Joint semantic utterance classification and slot filling with recursive neural networks," 2014 IEEE Spoken Language Technology Workshop (SLT), 2014, pp. 554-559, doi: 10.1109/SLT.2014.7078634.

[6] P. Xu and R. Sarikaya, "Convolutional neural network based triangular CRF for joint intent detection and slot filling," 2013 IEEE Workshop on Automatic Speech Recognition and Understanding, 2013, pp. 78-83, doi: 10.1109/ASRU.2013.6707709.

Github: <https://github.com/ProjectDeepLearning2021/JoinIntentDetectionSlotFilling>

Ejecución del modelo base:

<https://github.com/ProjectDeepLearning2021/JoinIntentDetectionSlotFilling/blob/main/Entregables/Entregable01/RNN-for-Joint-NLU-master/notebook.ipynb>