Elya Brown

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Summary

Intellectually curious Masters specializing in Computational Linguistics with a passion for developing technologies for marginalized languages and implementing deep learning and large language models into professional software. A creative writer capable of interweaving art, language, and technology. Seeking to leverage technical knowledge with creative skills in order to build human-centering technologies in the field of Natural Language Processing.

Education

Indiana University **Bloomington, IN**
M.S. Computational Linguistics, GPA: 3.977 2025

- Relevant Coursework: Advanced Natural Language Processing, Applying Machine Learning Techniques in Computational Linguistics, Seminar in Computational Linguistics, Computation & Linguistic Analysis

Chapman University **Orange, CA**
B.A. History and Creative Writing, GPA: 3.925 2021

Relevant Experience

Knowledge Graph Extraction via Large Language Models
National Institute of Criminalistics and Criminology — Brussels, Belgium 2024 - 2025
Worked with the EU's National Institute of Criminalistics and Criminology to develop an LLM-based Neo4j-powered application for knowledge graph extraction which enabled researchers to efficiently and reproducibly engage in Grounded Theory analysis. Personally developed the backend pipeline which took raw interview data, processed it through a locally-hosted LLM and loaded the resulting graphs into a Neo4j database.

Neural Word Segmentation for Classical Tibetan
Indiana University 2024 - 2025
Developed and trained a deep learning model using byte-pair embeddings in order to achieve top-of-the-line performance in neural word segmentation for Classical Tibetan.

Improved Neural Word Segmentation for Standard Tibetan
2nd EURALI Workshop @ LREC-COLING 2024 2023 - 2024
Matched top-of-the-line performance for neural word segmentation in Standard Tibetan using syllable-embeddings, drawing on novel research done with nearby languages.

Languages, Libraries, & Modules

Programming Languages: C++, Python, C#, Javascript **Databases**: Neo4j **Libraries**: TensorFlow, PyTorch, Keras **Graphics Interfaces**: Vulkan, OpenGL **LLM Interfaces**: Llama, Ollama **Natural Languages**: Tibetan, Spanish

Other

Foreign Language and Area Studies (FLAS) Fellowship for Tibetan

Indiana University Academic Year 2024 & Summer 2024