Evan Chapple

EXPERIENCE

LORIA — *Research Intern*

July 2024 - October 2024

Conducted research on improving RDF-to-text generation tasks using generation and augmentation techniques, focusing on datasets such as WebNLG and KELM. Achieved a new state-of-the-art performance in RDF lexicalization for Russian and developed a novel test dataset to evaluate system performance on unseen properties and large graph sizes.

Indiana University — *Teaching Assistant*

May 2023 - August 2023

Assisted in teaching a third-year computer science course on deep learning. Guided students in building neural networks using Racket and the Malt toolkit from scratch and eventually implementing and training models on various MNIST dataset. Supported students in understanding core deep learning concepts and their practical implementation.

Indiana University — *Undergraduate Researcher*

October 2021 - May 2023

Designed and executed a study investigating the impact of AI prediction interpretability on user reliance. Explored how noise in an audio stimulus and how linguistic cues influence user dependence on these predictions.

EDUCATION

Universität des Saarlandes — *Language Science and Technology (M.Sc.)*
Joint Masters: Erasmus Mundus program on Language and Communication Technology
October 2024 - February 2025

Université de Lorraine — *Natural Language Processing (M.Sc.)*
Joint Masters: Erasmus Mundus program on Language and Communication Technology
August 2023 - June 2024: GPA (French): 16.92/20

Indiana University — *Computational Linguistics BS & Psychology BA*
Minors in Computer Science, Economics, and Second Language Studies
August 2019 - May 2023: GPA: 3.97/4.00

Highest Distinction, Departmental Honors (CompLing), Hutton Honors College Distinction

PROJECTS

LLM-Based Knowledge Graph Verbalisation — Internship Project

Investigated how various generation techniques, such as RAG, affected the performance of Llama 3.1 on D2T tasks such as WebNLG and Kelm. The generation techniques investigated included direct generation, CoT generation, and a cumulative technique. The inputs to the models were also augmented with information collected from Wikidata. A combination of these techniques produced a new SotA for many D2T benchmarks.

Cognate Prediction for Under Resourced languages —Unsupervised Project

Built a seq2seq model implementing Bahdanau attention that predicts candidate cognate predictions given an input word in a related language. Results were collected between French and Spanish and later Finnish and Inari Saami. The attention layer was outputted to help explain the model's predictions. The project demanded work with encoder/decoder models, attention layers, and corpus collection.

Next-Word and Variant Prediction for Sardinian Dialects — Honors Thesis

Created a multi-task model that would predict next-word tokens using beam search, along with the variant of the language being inputted. The model was trained and tested on data that was collected through from Wikipedia then sorted based on which of the common dialects it was from. The project demanded work with RNNs, data sampling techniques, and web scraping.

Predictive Keyboard for Chukchi — Global Classroom

Developed a predictive algorithm alongside students at the Higher School of Economics, Moscow, as a tool for Chuckhi, a low-resource language spoken mainly in Siberia. The model used was based on a n-gram statistical language model while using sub-word tokenization, which is particularly effective in polysynthetic languages. The project demanded work with morphology of a polysynthetic language, n-gram models, and corpus analysis

SKILLS

Python

Java

Unix

Javascript

Racket

AWARDS

Erasmus Mundus Scholarship - 2023-2025

Fulbright Fellowship - 2023 (declined)

Executive Dean's List - 2019-2023

Psi Chi (Psychology Honors Society) - 2022

Phi Beta Kappa - 2022

Founder's Scholar - 2021-23

Inducted into Honors College - 2019

Provost Scholarship - 2019-2023

National Merit Scholar - 2019-2023

AP Scholar with Distinction - 2019

National Spanish Exam, Gold - 2019

Le Grand Concours, 4th - 2018

LANGUAGES

English, Native

French, Advanced Medium

Spanish, Advanced Medium

Italian, Intermediate High

German, Intermediate Medium

Russian, Intermediate Low

UnderLings — President

August 2021 - October 2022

Undergraduate linguistics club at Indiana University

Realtime French Prosody Learning Assistant — Supervised Project

Developed a tool for teaching students French prosody. The project involved implementing SOTA models, such as Crepe, to map sentence and word level intonation patterns. Then, I helped to create an interface to collect user input and return realtime performance in a graphical medium. The project demanded work with knowledge graphs, LLMs (such as Llama), and natural language inference.

Gender Exclusive Language and Ostracism — Psychology Capstone

Conducted research on the effects of gender exclusive language on measures of felt ostracism and needs satisfaction. The project demanded work with ethical guidelines, human subjects, and survey development.

The Language Conservancy — *Contract Linguist*

May 2022 - August 2022

Developed an eLearning platform and curriculum for the Mountain Ute tribe, updated entries for the Mountain Ute dictionary and Cowlitz dictionary, and scribed for a Shoshone rapid word collection.