Anuk Centellas

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Education

Mathematics/Computer Science BS, Linguistics BA | Western Washington University

Graduation: June 2025

4.0 GPA

Honors College, Honors Interdisciplinary Studies Minor

Outstanding Graduate in Linguistics

Projects

Elizalike Chatbot | Python | January 2025

- Used regular expressions to handle personal deixis for all 1st and 2nd person subject pronouns, as well as all forms of the verb be.
- Implemented keyword recognition in user input to prompt a predetermined response, or a response that retains a part of the input

Phoneme Classification Model | Python | November 2024

- · Used Scikit-learn's MLPClassifier to create an ensemble model of twelve neural networks.
- · The model classifies a vector representation of audio as a phoneme using probabilistic voting.
- The four best performing NNs are given more votes, increasing ensemble model performance.
- · Involved extensive hyperparameter tuning and comparison to other model types.

Arbitrarily Deep Neural Network | Python | October 2024

- · Pair programmed to implement a neural network from scratch, using numpy and argparse.
- · NN can train on classification and regression data, handles minibatching, and has a verbose mode.
- User can input data files and hyperparameters.
- · Based on user specified frequency, program evaluates NN on the dev set and prints performance.

Coursework

Algorithms and Data Structures, Machine Learning, Calculus I, II, III, Linear Algebra, Statistics and Probability, Linguistic Analysis, Phonetics, Phonology, Syntax and Morphology, Semantics and Pragmatics, Spanish Linguistics, Computational Linguistics, Natural Language Processing.

Experience

Machine Learning Research | Western Washington University | April 2024 - Present

- · Part of Dr Brian Hutchinson's Machine Learning research group.
- · Working on a NLP project in collaboration with the Speech Pathology department.
- · Specifically interested in transcribing toddler speech from recordings.

Math Fellow | Western Washington University | September 2022 - Present

- · Provide math tutoring and related resources to students to help improve their skills and performance.
- · Collaborate with other fellows and students themselves to create the best possible learning space.
- Encourage students to take the lead, realize and learn from their mistakes, and think critically about what we are working on so they can grow their knowledge base of problem-solving tools.

Skills

Python, Java, Advanced Mathematics, Visual Studio Code, Unix, Vim, pandas, Streamlit, Scikit-learn, GitHub, LaTeX, native speaker of English, Spanish, and Catalan.

Awards

- · Outstanding Graduate in Linguistics in 2025
- College of Science and Engineering Annual Scholarship from WWU in 2024
- · Anne Lobeck Linguistics Student Scholarship from WWU in 2024
- · Mathematics Memorial Scholarship from WWU in 2023 and 2024.