

Agustin Lorenzo

agustin.lorenzo@uga.edu | (762) 217-6375 | github.com/agustin-lorenzo

EDUCATION

University of Georgia | Athens, GA

M.S. Artificial Intelligence

B.A. Cognitive Science, Minor in Statistics

magna cum laude with Honors

EXPERIENCE

University of Georgia Department of Linguistics | Athens, GA

August 2024 – present

Graduate Research Assistant

- Train automatic speech recognition models to transcribe low-resource language varieties
- Utilize Python to manage data and build dictionaries automatically from annotated interviews
- Develop online corpus interface with an open-source platform

Georgia Tech Research Institute | Atlanta, GA

January 2024 – August 2024

Large Language Model Student Assistant

- Advanced Research in Computing and Artificial Intelligence Division (ARCAID)
- Utilized LLMs and high-performance computing for synthetic data generation
- Trained classifier models on synthetic datasets for multi-label open-domain classification

Georgia Emotion Neuroimaging Lab | Athens, GA

January 2023 - present

Research Assistant

- Collaborate with lab members to define the brain mechanisms involved in the discrimination of emotional stimuli
- Use dense-array EEG recording to collect emotional response data from participants
- Engineer method for eliciting startle reflex during presented stimuli to analyze social desirability bias

SELECTED PROJECTS

Recognizing Emotions from EEG Data with Vision Transformers

June 2024 – present

Master's Thesis

- Evaluate AI models for applications to neuroimaging and affective computing
- Analyze the efficacy of transformer architectures in emotion classification from electroencephalography (EEG) data
- Design vision transformer models trained on continuous wavelet transform features extracted from EEG data

Echocardiography Video Generation on Edge Devices

January 2025 – present

Machine Learning Systems Term Paper

- Implement ECHOPulse model in ONNX for adaptation to edge devices
- Generate echocardiography video from ECG signals recorded on wearable devices
- Optimize model with pruning and quantization

Evolving a Connect Four Playing Program

August 2024 – December 2024

Evolutionary Computation Term Paper

- Programmed a neural network model to evaluate board states during minimax search and trained network weights using evolutionary strategies
- Implemented and adapted Blondie24 algorithm to a new environment
- Evaluated performance of Blondie24 algorithm against a modern evolutionary programming algorithm with chi-squared test of independence

SKILLS

Programming Languages: Python, Java, C/C++, R, \LaTeX

Packages: Pytorch, Tensorflow, Scikitlearn, ONNX

Operating Systems: Linux, Unix, Mac OS, Windows

Other: Artificial intelligence, Machine learning, ML systems, Evolutionary computing, Gen AI, Statistics, Neuroscience, Affective computing, LLMs, Transformers, Git, Natural language processing (NLP), High performance computing (HPC)

CONFERENCE ABSTRACTS & PRESENTATIONS

Langston, K., Renwick, M., Vrzic, Z., Hale, J., Jones, A., **Lorenzo, A.**, & Dual, M. (2025, March 6 – 9). *Creating a multilingual spoken corpus for language documentation and research: Tools and workflows for low-resource languages* [Paper presentation] (accepted). 9th International Conference on Language Documentation and Conservation, Honolulu, HI, United States.

Farkas, A.H., Gehr, M.C., Jia, H., Chand, A., Bennett, K., **Lorenzo, A. E.**, & Sabatinelli, D. (2023). The emotional impact of scenes and video: Effect sizes of ERP, ssVEP, and self-report measures [Poster abstract]. *Psychophysiology*, 60, (S47). doi: 10.1111/psyp.14417

Lorenzo, A. E., Guice, K. B., & Clark, M. A. (2022, April 4 – 5). *Comparing the internal and external factors that drive workaholism* [Poster session]. Center for Undergraduate Research Opportunities (CURO) Symposium, Athens, GA, United States.

Lorenzo, A. E., Guice, K. B., & Clark, M. A. (2022, January 21 – 23). *Comparing the internal and external factors that drive workaholism* [Poster session]. Harvard National Collegiate Research Conference, Cambridge, MA, United States.

TECHNICAL REPORTS

Lorenzo, A. E., & Sabatinelli, D. (2024). A modern hardware and software system to elicit the acoustic startle reflex in humans. GEN Lab Technical report, Department of Psychology, University of Georgia.

Lorenzo, A. E., Iyer, A., Johnson, B., Kerce, C., & Gonzalez, M. (2024). Building classifiers for private data using synthetic data generation. ARCAID Technical report, Information and Communications Laboratory, Georgia Tech Research Institute.

HONORS & AWARDS

Lloyd Cloer Endowment Award

November 2024

Elkay Scholarship

April 2022

Zell Miller Scholarship

August 2020 - May 2024

UGA Center for Undergraduate Research Opportunities Honors Scholar

August 2020 - May 2024

EXTRACURRICULAR & VOLUNTEER

AI Society at Terry

February 2025 – present

Undergraduate Neuroscience Organization

August 2022 – May 2024

UGArden

August 2022 – May 2023

OTHER WORK EXPERIENCE

Chuck's Fish — Athens, GA

October 2023 - February 2024

Line Cook

- Prepared appetizers, salads, and main entrees on the grill, fry, and sauté stations; managed inventory; trained new team members

Carrabba's Italian Grill — Athens, GA

June 2022 - February 2023

Line Cook

- Prepared appetizers, salads, and main entrees on the grill, fry, and sauté stations; managed inventory; trained new team members

IPT Sink Company — Marietta, GA

May 2019 - August 2021

Senior Warehouse Associate

- Collaborated with team members to fulfill all orders for delivery each day; developed forklift experience