

Self-motivated research scientist in Artificial Intelligence and Machine Learning with strong communication and teamwork skills in addition to problem-solving and analytical abilities looking to advance the field of machine learning and contribute to innovative solutions for complex problems.

Skills

Machine Learning Information Theory Quasistatic Approximation Neural Networks Simulated Annealing
Particle Swarm Optimization Boids Ant Colony Optimization K-means++ Evolutionary Algorithms
Recurrent Neural Networks Gradient Descent Theta Sparse Grouping Hierarchical Agglomerative Clustering
Graph Theory Graph Embedding Graph Clustering Dynamical System Analysis Cellular Automata
Hopfield Networks Convolutional Neural Networks Transformers Level Set Method Bootstrapping
Topological Data Analysis Computational Topology Lifetime Learning Backpropagation

Software

PyTorch TensorFlow NumPy SciPy MongoDB Hadoop Spark Matplotlib Plotly Git
SQL Python Scikit-learn Pandas Jupyter \LaTeX

Publications & Conferences

- Laborde, Z., & Izquierdo, E. J. (2023). Spatial embedding of edges in a synaptic generative model of *C. elegans*. *ALIFE 2023: Ghost in the Machine: Proceedings of the 2023 Artificial Life Conference, ALIFE 2023: Ghost in the Machine: Proceedings of the 2023 Artificial Life Conference*(26). https://doi.org/10.1162/isal_a_00611
- Severino, G. J., Laborde, Z., & Barwich, A.-S. (2023). The degeneracy of control architectures in cell lineages: Implications for tissue homeostasis. *ALIFE 2023: Ghost in the Machine: Proceedings of the 2023 Artificial Life Conference, ALIFE 2023: Ghost in the Machine: Proceedings of the 2023 Artificial Life Conference*(23). https://doi.org/10.1162/isal_a_00608
- Laborde, Z., Toler, W., Velhal, K., Farag, T., & Chakra, A. (2019). Method and system for implementing a holistic umbrella drone. <https://priorart.ip.com/IPCOM/000257353>
- Laborde, Z., Stephenson, D., Reiss, A., Beaton, E., & Cohen, J. (2017). Anterior-posterior insular cortex bisection plugin for mango [Poster presentation]. *Cognitive Neuroscience Society*.
- Laborde, Z., & Cohen, J. (2016). Nostalgia and the perception of time. *XULAnEXUS*, 14(1). <https://digitalcommons.xula.edu/xulanexus/vol14/iss1/1>

Education

Indiana University Bloomington Aug. 2021 - Present
Neuroscience & Cognitive Science Ph.D.*

Xavier University of Louisiana Aug. 2013 - May 2017
Psychology Bachelor of Science
Computer Science (minor)

Research Experience Work Experience

IBM

July 2017 - Aug 2021

Software Engineer

- Developed features to automate event analytics analysis and prediction for operation engineers using machine learning

* coursework complete