

Logan Persyn

logan.persyn@utexas.edu | (210) 284-1929 | orcid.org/0009-0004-2286-7657

Education

University of Texas at Austin Aug 2025 – May 2030
Doctor of Philosophy, Cell and Molecular Biology Austin, TX
Interdisciplinary Life Sciences Program
Advisor: Dr. Can Cenik, Department of Molecular Biosciences
PhD Coursework: Grant Writing and Presentations, Cell Biology, Genetics

University of Texas at Austin Aug 2019 – May 2025
Master of Science and Bachelor of Science in Computer Science Austin, TX
BS/MS Integrated Program
Graduate GPA: 3.97/4.0, Undergraduate GPA: 3.92/4.0
Graduate Coursework: Bioinformatics, Foundational Techniques of Machine Learning, Human-Computer Interaction, Ethics in AI, Reinforcement Learning, Computer Graphics, Programming Languages, Algorithms
Undergraduate Coursework: Natural Language Processing, Quantum Information, Machine Learning, Sci. Comp. in Num. Analysis, Neural Networks, Programming for Performance, Symbolic Programming

Experience

Research Assistant, University of Texas – Austin, TX Aug 2022 – Present

- Supervising Professor: Dr. Can Cenik, [Cenik Lab](#)
- Develop deep learning and classical machine learning models (Bash, Pandas, NumPy, Scikit-learn, PyTorch, TensorFlow) predicting cell-type-specific mRNA translation efficiency and ribosome occupancy from sequence. Apply model interpretation methods (in silico mutagenesis, integrated gradients) to identify sequence features driving translation efficiency predictions
- Co-first author and contributing author on four peer-reviewed publications in *Nature Biotechnology*, *Genome Biology*, and *Nature Communications*
- mentor undergraduate researchers in the lab
- Began as an Undergraduate Research Assistant in 2022; now a Graduate Research Assistant pursuing a PhD in the Interdisciplinary Life Sciences program while continuing this research

Leadership Team, Biology and Machine Learning (BioML) Society – Austin, TX May 2026 – Present

- Student-led organization; I organize talks from professors, industry professionals, and graduate students working at the intersection of biology and machine learning
- I led tutorial series over the summer covering the basics of python and coding a neural network from scratch.

Undergraduate Teaching Assistant, University of Texas – Austin, TX Jan 2022 – May 2022

- Supervising Professor: Dr. Gordon Novak, Course: Symbolic Programming in Clojure
- Assisted students with assignments in office hours, graded and provided constructive feedback on their work. Created an automatic script to grade assignments and code to help student's debug work

Summer Intern, Bandera Electric Coop. – Boerne, TX June 2020 – July 2020

- Organized and Digitized BEC's Member Tariff
- Assisted in developing an employee training program for BEC's home energy management system, Apolloware. Made programs to reformat and process data from Apolloware systems and export them to be used for machine learning

Publications

Predicting the translation efficiency of messenger RNA in mammalian cells May 2026

D. Zheng, **L. Persyn**, J. Wang, Y. Liu, F. Ulloa-Montoya, C. Cenik, V. Agarwal

Nature Biotechnology 44(5):783–796. PMID: PMC12323635. Preprint: doi.org/10.1101/2024.08.11.607362

Translation efficiency covariation identifies conserved coordination patterns across cell types May 2026

Y. Liu, S. Rao, I. Hoskins, M. Geng, Q. Zhao, J. Chacko, V. Ghatpande, K. Qi, **L. Persyn**, J. Wang, D. Zheng, Y. Zhong, D. Park, E. Sarinay Cenik, V. Agarwal, H. Ozadam, C. Cenik

Nature Biotechnology 44(5):797–809. PMID: PMC12329774. Preprint: doi.org/10.1101/2024.08.11.607360

Two related manuscripts. Liu et al. curated RiboBase, a database of matched RNA-seq and ribosome profiling experiments spanning 78 human and 68 mouse cell types, and identified a conserved pattern of translation efficiency covariation linked to shared gene function across cell types. Building on RiboBase, Zheng et al. developed RiboNN, a convolutional model that predicts cell-type-specific translation efficiency from mRNA sequence and shows utility for predicting the translational behavior of therapeutic RNAs.

I was a co-first author of Zheng et al., where I built the classical machine learning benchmark models (linear, random forest, gradient-boosted) evaluated against RiboNN and used interpretation methods to identify the sequence features driving its predictions. This work formed the basis of my master's thesis.

Ribo-ITP enables identification of translons from limited input samples Forthcoming

V. Ghatpande, U. Paul, **L. Persyn**, Y. Tian, M. Howard, C. Cenik

Nature Communications, in press. PMID: PMC12340811. Preprint: doi.org/10.1101/2025.08.04.668486

Contributing author on a new experimental and computational pipeline for identifying translated open reading frames (translons) from limited-input ribosome profiling samples.

Translational buffering tunes gene expression in mice and humans Feb 2026

S. Rao, A. Y. Le, **L. Persyn**, C. Cenik

Genome Biology 27(1). PMID: PMC13040816

Developed a gradient-boosted classifier trained on sequence-derived features to test whether translational buffering can be predicted from sequence alone, finding only modest performance (average precision 0.34) relative to a model incorporating cellular conditions (0.53) – evidence that cellular context, not sequence, is the primary determinant of translational buffering.

Service

Fall Undergraduate Research Symposium - Volunteer judge of presentations from UT undergraduates

Keep Austin Beautiful - Picking up trash in/around Lady Bird Lake.

UT Farm Stand - Volunteered to tend gardens on campus and work the monthly farm stand

Boys & Girls Club - Volunteer Basketball coach

Honors & Scholarships

- 2025 Best Poster Award, Interdisciplinary Life Sciences Retreat, UT Austin
- 2025 Invited Talk, RNA/DNA Club, UT Austin
- Class of 2019 High School Valedictorian; Class Rank: 1/132; Bandera High School
- 2019 10th at Nationals, 2nd at State, 1st at Regionals for Website Design; Business Professionals of America; Bandera High School Chapter
- 2019 Martin Golland Scholarship Recipient, Southwest Research Institute; also recipient of the American Legion Auxiliary (Unit 410), Doane Memorial, Joe S. Langford, Joe and Lacy Gorder CTE, Bandera County Kiwanis Club, and Gnade Trust scholarships