

Enrique Nueve

ML RESEARCHER · ML ENGINEER

Boulder, CO

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Technical Skills

Programming

PROFICIENT IN PYTHON (5 YEARS OF INDUSTRY EXPERIENCE)

- Additional experience with: C++, Rust, R, GoLang, JS/REACT, SQL

Data Analysis and Modeling

EXPERIENCE IN STATISTICAL TESTING, EXPERIMENT DESIGN, ML, OPTIMIZATION, AND PHYSICS

SIMULATIONS

- **ML:** Tensorflow, PyTorch, Computer Vision, Natural Language Processing, Time Series Forecasting, Active Learning, Concept Drift Detection, Intelligent Document Processing, and Reinforcement Learning
- **Optimization:** submodular and convex optimization (industry experience with linear, quadratic, and difference of convex functions (DC))
- **Physics Simulation:** in industry, implemented a 2D Physics engine with collision detection, responsive physics, and optimized the engine to account for non-convex body collision detection.

Education

CU Boulder

PHD IN CS FOCUSED IN ML THEORY AND ALGORITHMIC ECONOMICS

- Advisor: Bo Waggoner
- Research experience in Elicitation, Loss Functions, Prediction Markets, and Learning Automata

Boulder, CO

Fall 2021 - Spring 2026

Northern Illinois University

B.S. STATISTICS

- Magna Cum Laude
- Minors Economics

Dekalb, IL

Fall 2018 - Spring 2021

Elgin Community College

ASSOCIATES OF ENGINEERING

- Summa Cum Laude
- Additional Associates of Science

Elgin, IL

Fall 2016 - Spring 2018

Professional Experience

Apple (Hardware Org. -Softgoods), PhD Intern focused on ML engineering and Physics simulations,

May 2025 - Dec. 2025
Developed ML pipelines and Physics simulations to optimize the development of hardware. Regularly presented and trained team members and management on the created methodologies facilitating accessibility to the created tools.

Federal Reserve Bank of Chicago, Senior Data Scientist,

May 2022 - May 2025
Performed exploratory data analysis, data engineering, and predictive modeling to help facilitate automation and monitoring of bank regulation processes. Core responsibility in the team where machine learning modeling and infrastructure development focused on business applications. Developed products for tasks such as earnings forecasting, visualizations, and intelligent document processing.

Argonne National Laboratory, ML Engineer,

June 2020 - Sep. 2021
Conducted machine learning engineering for the SAGE project — a nationwide network of smart sensors utilizing artificial intelligence. Developed methodology for nowcasting (short-term weather forecasting) on the edge. Conducted research in active learning, concept drift detection, and online learning techniques for the edge.

Publications

PUBLISHED

Enrique Nueve, Bo Waggoner. Smooth Quadratic Prediction Market. Accepted NeurIPS 2025

Enrique Nueve, Bo Waggoner, Dhamma Kimpara, Finocchiaro. Trading off Consistency and Dimensionality of Convex Surrogates for Multiclass Classification. Accepted NeurIPS 2024

Enrique Nueve, Jessie Finocchiaro, Rafael Frongillo. The Structured Abstain Problem and the Lovász Hinge. Accepted COLT 2022

Enrique Nueve, Sean Shahkarami, Seongha Park, Nicola Ferrier. Addressing the Constraints of Active Learning on the Edge. Accepted IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW) (2021)

Enrique Nueve, Robert Jackson, Rajesh Sankaran, Nicola Ferrier, Scott Collis. WeatherNet: Nowcasting Net Radiation at the Edge. Accepted IEEE Conference on Technologies for Sustainability (SusTech) 2021

IN REVIEW

Enrique Nueve, Bao Nguyen, Rafael Frongillo, Bo Waggoner. Adaptive Liquidity in Prediction Markets via Online Learning. 2026

Enrique Nueve, Jessie Finocchiaro, Rafael Frongillo. Structured Prediction with Abstention via the Lovász Hinge. 2025

Awards

2025 **Research Paper Award**, CU Boulder Computer Science Department

Teaching Experience

Spring 2025	CSCI 3104 Algorithms , TA	<i>CU Boulder</i>
Spring 2024	CSCI 3104 Algorithms , TA	<i>CU Boulder</i>
Spring 2023	CSCI 3104 Algorithms , TA	<i>CU Boulder</i>
Fall 2022	CSCI 3104 Algorithms , TA	<i>CU Boulder</i>
Fall 2022	CSCI 4802/5802 Data Science Team Companion Course , TA	<i>CU Boulder</i>
Spring 2022	CSCI 4802/5802 Data Science Team Companion Course , TA	<i>CU Boulder</i>