

ERIC BOLTON

New York, NY · edbltn@gmail.com · www.ericdidierbolton.com · github.com/edbltn · linkedin.com/in/edbltn

EXPERIENCE

Spherical Harmonics

Co-founder

Present

- Co-founded a nonprofit building open-source tools that help communities design safer streets.

Meta

Software Engineer, Instagram Reels

Apr 2025 - May 2026

- Co-led development of a distilled multimodal model for time-sensitive Reels, improving precision from 0.752 to 0.889 at 80% recall; owned training data, evaluation, feature registration, and experiments.
- Built trend-retrieval and ranking infrastructure, expanding candidate media pools and implementing feature-based filtering to improve serving capacity without reducing recall.
- Created reusable evaluation pipelines for timeliness, trend expansion, and clustering, with representative sampling, automated LLM scoring, and dashboards for comparing model quality.

NewsWyze

Chief Technology Officer

Feb 2024 - Apr 2025

- Led development of production LLM summarization and translation systems for newsrooms, helping reduce editorial processing time by 85% while preserving editorial quality across languages.
- Built retrieval-augmented generation pipelines using journalistic annotations to improve model outputs, integrating evaluation and monitoring into the production workflow.

Applied XL

Founding Engineer

Jun 2021 - Feb 2024

- Managed two data scientists building data-to-text LLMs that surfaced investment opportunities for biotech funds; used LoRA and DPO fine-tuning and evaluated outputs with BERTScore and FactScore.
- Served as interim CTO, overseeing the Django API, React frontend, data workflows, and AWS infrastructure; developed deterministic graph clustering and production classifiers for drug-pipeline events.
- Co-authored a clinical-trials report analyzing early stopping across 70,000 trials, using Weibull regression to investigate risk factors and patterns in trial outcomes.

Columbia University, Brown Institute

ML Engineer, Local News Lab

Jun 2020 - Jun 2021

- Built article recommendation systems using matrix factorization and document embeddings, balancing recency, relevance, and diversity for local news audiences.
- Prototyped adaptive paywalls and alternative revenue models, and ran A/B tests and contextual-bandit experiments to evaluate recommendation strategies.

The Wall Street Journal

Machine Learning Scientist, R&D

Jun 2018 - Jun 2020

- Built Talk2020's NLP pipeline and search tools for decades of political statements, making candidate quotations searchable for journalists and millions of subscribers.
- Developed AI Portraits, a GAN-based system that turns photographs into WSJ-style stipple drawings; augmented training data to improve representation across portrait subjects.
- Analyzed a corpus of more than one million articles with topic models and word embeddings, informing product strategy and reporting on changes in news coverage over time.

SELECTED RESEARCH & PROJECTS

High Quality Real-Time Structured Debate Generation

- Co-authored research using debate-tree data augmentation to improve language-model argument generation.

Frontier Beat

- Built a platform tracking and summarizing trending arXiv papers and associated GitHub repositories.

EDUCATION

Columbia University

M.S. Computer Science; M.S. Journalism.

May 2019

Brown Center Fellow; Machine Learning Teaching Assistant.

Princeton University

A.B. Geosciences.

May 2015

TECHNICAL SKILLS

- Languages: Python, SQL, Hack/PHP, Java, C, Go, R
- ML & infrastructure: PyTorch, JAX, TensorFlow, Transformers, PEFT, TRL, XGBoost, PySpark, AWS, Terraform, Airflow

LANGUAGES

English and French (native); Spanish (intermediate)