

Brynja Schultz

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Work authorization: U.S., EU/EEA, Switzerland

Summary

ETH Zürich MSc student in Computational Biology and Bioinformatics and NYU Computer Science graduate with a minor in Mathematics. Experience in quantitative analysis, machine learning model evaluation, and data engineering, with a technical foundation in Python, SQL, statistics, machine learning, and mathematical modeling.

Education

ETH Zürich (Swiss Federal Institute of Technology)

Expected June 2028

MSc in Computational Biology and Bioinformatics

Relevant Coursework: Mathematical Optimization, Mathematical Modeling, Image Analysis & Computer Vision, Systems Genomics, Information Systems for Engineers

NYU (New York University)

Jan. 2025

BA in Computer Science, Minor in Mathematics

GPA: 3.82 / 4.0, Cum Laude, Dean's List, 2021–2024

Relevant Coursework: Algorithms, Probability & Statistics, Linear Algebra, NLP, Discrete Mathematics, Operating Systems

Research & Technical Projects

Equity Factor Analysis (Python)

Oct. 2026

- Analyzed U.S. equities using CAPM and Fama-French factor regressions, estimating factor exposures and rolling betas in Python.
- Performed out-of-sample testing and compared return correlations, cumulative returns, and model fit across securities.

Evaluating LLMs for Legal Q&A (NLP)

Aug. 2024 – Dec. 2024

- Evaluated Legal-BERT, Custom-Legal-BERT, and BERT-Double on CaseHOLD, a 53,000+ example legal reasoning dataset.
- Designed a novel Weighted Correctness Score incorporating BERTScore-based question difficulty, model confidence, and correctness to identify model weaknesses missed by traditional accuracy metrics.

Cloud-Based Media Archiving & Data Engineering

Mar. 2020 – Present

- Built and maintained an AWS S3-based workflow to digitize, organize, and preserve 1,000+ hours of legacy analog media.
- Used Amazon S3, metadata tagging, and storage-tiering practices to improve retrieval and long-term accessibility.

Technical Skills

Data & Programming: Python, SQL, NumPy, pandas, scikit-learn, statsmodels

Machine Learning: PyTorch, TensorFlow, BERT fine-tuning, NLP model evaluation

Additional Languages: Java, C++, C

Tools & Cloud: Git, Docker, Unix/Linux, GCP, Amazon S3

Certifications: Stanford Machine Learning Specialization; IBM AI Engineering (in progress)

Additional Experience

Mathnasium Learning Centers – Parker, Colorado

Jan. 2026 – Aug. 2026

- Taught K–12 mathematics across algebra, geometry, and pre-calculus, adapting to individual learning needs.

Private Nursing Assistant – Reykjavík, Iceland

May 2023 – Aug. 2023

- Provided patient support in a home-care setting while following hygiene, safety, and care protocols.