

Linda Dominguez

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EDUCATION

Wellesley College

B.A. in Psychology

- Relevant Courses: Data Structures, Computer Programming & Problem Solving, Stats, Java OOP

Wellesley, MA

Sep. 2020 – May 2024

Massachusetts Institute of Technology (MIT)

Cross-registered in Computer Science, Machine Learning, Data Science

Cambridge, MA

- Relevant Courses: Intro CS, Programming Fundamentals, Deep Learning, WebLab, Machine Learning, Software Systems for Data Science, Web Design

Sep. 2022 – May 2024

EXPERIENCE

AI Engineer, Jefferies Group LLC(via Widenet AI)

New York Metro

Feb. 2025 — Present

- Partnered with Jefferies' CTO and engineering team to design and develop a document extraction system, reducing manual processing time and improving data accuracy.
- Conducted tests to evaluate optimal approach for data input, comparing OCR, direct file input to model, or both.
- Built UI and backend components using TypeScript and React, delivering seamless UX.
- Diagnosed system issues, optimized performance, and automated document processing & data validation.

Data Scientist, Fusion Alpha AI

New York, NY

July 2024 — Dec. 2024

- Developed and optimized LSTM models to enhance ticker(stock) buy/sell signals, improving accuracy by 5%. Created and upkeeped data pipelines using AWS, MongoDB, and S3 to source, process, and store data.
- Automated data collection from various APIs and performed feature extraction for thematic analysis, informing targeted outreach strategies and improving CRM automation.
- Used MongoDB database for storing historical data and conducting analytics on large datasets.
- Developed and improved React-based system to automate email management using Gmail APIs, boosting operational efficiency by 30%.

Machine Learning Engineer Intern, Biointerphase

Remote

Sep. 2023 — Dec. 2023

- Built random forest & NLP to predict bat population decline(97% accuracy) using timestamp & geolocation data.

Fellowship, Breakthrough Tech AI @ MIT

Cambridge, MA

June 2023 — April 2024

- Received hands-on training in machine learning algorithms; earned ML Foundations certification.

PROJECTS

Low-cost Ensemble Training Framework

In Progress

- Developed a low-cost ensemble framework for CIFAR-10, using pruning, BatchEnsemble, and distillation to reduce training time and memory usage.

Sentiment Analysis on Cryptocurrency Patterns

Feb. 2024 – May 2024

- Developed LSTM & GRU models for Bitcoin price prediction using tweet sentiment & historical data.
- Used Alpaca API & NLTK for data extraction and sentiment analysis, boosting prediction accuracy.
- Architected data pipelines to automate real-time data collection and preprocessing.

New York Botanical Gardens Image Classification

Jan. 2024 – April 2024

- Developed a ResNet101V2-based model to classify 120,000+ plant and animal specimen images across 10 categories with 97% accuracy.
- Optimized the data pipeline for preprocessing images using TensorFlow and Numpy, reducing training time by 25%.

HealthAssess: Web-based AI Health Tool(Make Harvard Hackathon)

Feb. 2024

- Flask health assessment tool using live heart rate data, integrating GPT-4 API for real-time analysis & prediction.

SKILLS

Programming Languages: Python, SQL, Java, HTML/CSS, R

Tools: MongoDB, Pandas, TensorFlow, Numpy, Flask, AWS S3, FastAPI

Data Science Skills: Data Pipeline Development, Feature Engineering, Data Warehousing, AI Use Cases, Reporting Practices, Time Series Analysis, Excel, API integration

LEADERSHIP & AWARDS

Camellia Student Leadership Award, awarded by Wellesley College

May 2023

Wellesley College Honor Code Council Deputy Chief Justice

Sep. 2022 – May 2023

OTHER: MIT SHPE, Wellesley Engineering Society, Wellesley CS Club

Undergrad