

ARYAN MISHRA

New York, NY

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EDUCATION

Columbia University, M.S. Business Analytics, GPA: 3.7/4.0

New York, NY | Feb 2023

Courses: Deep Learning for FE & OR, Machine Learning, Optimization, Statistics & Simulation, Marketing Analytics.

Bocconi University, B.S. Economics, Management & Computer Science, GPA: 3.82/4.0 (105/110)

Milan, IT | Jul 2021

Courses: Real Analysis, Linear Algebra, Game Theory, Mechanism Design, Data Structures & Algorithms, Econometrics, Databases.

RELEVANT WORK EXPERIENCE

Prudential Financial

Newark, NJ

Data Scientist

Feb 2023 - Present

- Leveraging AI/ML to optimize the sales & distribution channel and maximize customer experience (CX).

Data Science Intern

May 2022 - Aug 2022

- Created a Next Best Action (NBA) model to optimize client interactions that increased prospective lead conversion rate by **59%** and adjusted operating income (AOI) by **17%** using LSTM neural networks.
- Leveraged the Python data science stack (Pandas, NumPy, TensorFlow) for model building and engineering of **30+** features.
- Collaborated with senior business and technical stakeholders to identify user pain points and define key metrics for the model.

Unilever

Trumbull, CT

Data Science Intern - R&D

Sep 2022 – Dec 2022

- Automated knowledge extraction from dense biomedical literature that resulted in an expected **\$300,000** reduction in annual running costs using a transformer-based Named Entity Recognition (NER) model.
- Developed and deployed a custom fuzzy-matching model with Python that accelerated identification of **40K+** product variants from **200K+** e-commerce reviews.
- Modularized legacy code and productionized preprocessing, training, and prediction endpoints using the FastAPI framework.
- Continuously involved in deployment pipeline integration, pull requests, code reviews, and load/stress testing APIs.

Focus Project Europe

Madrid, ES

Product Data Science Intern

Jun 2021 - Sep 2021

- Led the design and implementation of a prototype grade prediction feature using a Random Forest model for an Ed-Tech start-up.
- Forecasted academic performance with **95%** accuracy to create prototype. Later scaled to a user base of **5000** students.
- Authored a white paper promoting prototype and later presented it to over **5** educational institutions across Europe.

RESEARCH AND PROJECTS

Ask2.ai

New York, NY

Quantitative Researcher – Capstone Project

Sep 2022 – Dec 2022

- Created an automated pipeline to extract **700+** macroeconomic indicators from OECD, FRED, & World Bank using Python.
- Researched and implemented a Hidden Markov model for regime detection - used Brownian Bridge imputation for missing data.

Ardian

New York, NY

Data Scientist – Capstone Project

Jan 2022 - May 2022

- Forecasted one-month ahead electricity price spikes using XGBoost, potentially saving the business **\$8M** on an annualized basis.
- Reduced the noise in prior Ardian models with dimensionality reduction, resulting in a **43%** improvement in performance.
- Built a Power BI dashboard to visualize backend model results and allow stakeholders to make business-critical decisions.

Bocconi University

Milan, IT

Research Assistant – Computer Vision (Bocconi-Gucci Research Lab)

Jun 2020 – Aug 2020

- Constructed and applied Convolutional Neural Network (CNN) models for object identification and image embedding.
- Web-Scraped and annotated over **100,000** images of various fashion brands to create an in-house dataset for fashion research.
- Programmed and tested the architectures of various CNN models using TensorFlow, including VGG-16, ResNet, and FashionNet.

LANGUAGE AND SKILLS

- Programming: Python (NumPy, Pandas, Matplotlib, Scikit-learn, TensorFlow, Statsmodels, spaCy), R, SQL (PostgreSQL, Oracle).
- Tools: AWS SageMaker, Power BI, Git, Docker.
- Spoken Languages: English, Hindi, French, Italian.

ADDITIONAL INFORMATION

- Runner-Up Vodafone Italy "TOBi" Hackathon 2019 - optimized and enhanced Vodafone's chatbot using unsupervised machine learning algorithms. Subsequently endorsed by Vodafone on a national level.