NICHOLAS TEDESCO

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SUMMARY

Data Scientist with **4+ years of experience** designing end-to-end machine learning (ML) systems. Proven ability to deliver high-impact solutions, including architecting an ML pipeline which saved **over $3 million** in consulting fees. Proficient in modern programming languages (**Python, R, SQL**), modern ML libraries (**Scikit-learn, PyTorch**), and cloud computing technologies. Strong interdisciplinary educational foundation in statistics, CS, and the life sciences.

HARD SKILLS

Languages: [Advanced] – Python, R, SQL. [Proficient] – C / C++, Bash. [Familiar] – Java, Go, JavaScript, HTML / CSS.
Packages: [Python] – pandas, numpy, matplotlib, scikit-learn, pytorch, lightgbm, optuna, shap. [R] – tidyverse, caret, xgboost.
Tools: [Cloud] – Azure, GCP, Databricks, Snowflake. [Reporting] – Jupyter NB, Power BI, Lucidchart.
[DevTools] – Git / GitHub, Conda, Docker, Vim.

PROFESSIONAL EXPERIENCE

Humana – MarketPoint Remote
Data Scientist II (Python, R, SQL Server, Azure, Databricks / MLflow, Snowflake, Git, Conda, Spark) September 2024 – Present

- Developed production-grade ML models and designed statistical A/B experiments regarding Medicare Advantage (MA) sales.
- Internalized ML model and accompanying ETL pipeline within 3 months of start date, saving MarketPoint **over $3 million** in consulting fees. Improved on previous version of project by generating model insights based on explainable AI (SHAP).
- Led a cluster-randomized controlled trial to test the impact of an AI-based marketing intervention on business outcomes.

University of Michigan School of Medicine Remote
Data Scientist (R, Python, SQL, GCP, Bash, Git) March 2023 – September 2024

- Led statistical analyses for 3 independent physician researchers, directly contributing to **5+ publications** in clinical journals.
- Applied analytic methods to investigate relationships between predictors of interest and clinical outcomes, which included hypothesis testing, regression (linear, logistic, penalized), survival analysis, and machine learning.
- Created ETL pipelines to prepare raw medical data for analysis, optimizing code to scale to large data (ex: **50 million instances**).

University of Pittsburgh School of Public Health Pittsburgh, PA
Biostatistician (R, SQL, GCP) December 2021 – April 2023

- Contributed to PADOH-funded study on the relationship between fracking and adverse birth-related outcomes.
- Fit mixed effects linear and logistic regression models to perform statistical inference on cohort of **200,000 birth records**.

EDUCATION

Georgia Institute of Technology Atlanta, GA
MS in Computer Science – Machine Learning (GPA: 4.0) August 2023 – May 2026

University of Pittsburgh Pittsburgh, PA
MS in Biostatistics – Health Data Science (GPA: 4.0) August 2021 – December 2022
BS in Biochemistry, BA in Writing (GPA: 3.87) August 2017 – May 2021

PROJECTS

Chess Minimax Player: applied minimax algorithm with alpha-beta pruning and iterative deepening to Python's chess library.
[Tools] – Python (numpy, chess). [Skills] – minimax, recursive backtracking, dynamic programming / memoization.

BidCentral: developed full-stack application to simulate online auction platform as part of Georgia Tech coursework.
[Tools] – PostgreSQL, Python (Flask), HTML/CSS, JavaScript, Docker, Git. [Skills] – database design, relational modeling.

CERTS: TensorFlow Developer, Coursera Stanford ML, Coursera Statistics with Python.
AWARDS: Humana STAR Award, Delta Omega Honorary Society, Brackenridge Research Fellowship, National Merit Scholar.