

Ethan M Roberts

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Goal

Aspiring data scientist with a strong foundation in natural language processing, predictive analytics, and machine learning. I encourage data-driven culture and work cross-functionally with technical and non-technical teams.

Skills

Languages & Packages: Python, SQL, R, VBA, Pandas, Numpy, Scikit-Learn, NLTK, PyTorch

Analysis & Methods: Data Analysis, Statistical Analysis, Machine Learning, Neural Networks, Transformers, Data Modeling, NLP

Business: KPI Benchmarking, Process Analysis, Project Management, Power BI, Tableau

Work Experience

Georgia Institute of Technology - Instructional Associate - *Remote, CA* 06/2024 - Current

- Teaching data science, machine learning, and business analytics concepts to entry level students
- Assist in curriculum development and updates, grading, teaching, and monitoring student forums

Netbase Quid - Senior Business Analyst - *Santa Clara, CA* 11/2021 - 11/2024

- Developed, validated, and deployed forecasting machine learning models in Python, reducing average error from +16% to +1.5%
- Identified waste in forecasting process through data collection, exploration and financial model prototyping in Power Query and VBA leading to a more scalable process, reducing time spent on forecasting tasks by 80%
- Owned finance forecasting, working to develop and maintain benchmarks for key performance indicators, and presented to C-suite and senior leadership
- Coordinated new Professional Services strategy among cross-functional teams, leading to a 50% reduction in time spent processing and a 90% reduction in by-hand errors

iPayables, Inc - Revenue Operations Analyst - *Aliso Viejo, CA* 4/2019 - 10/2021

- Developed and implemented A/B experiments (DOE) for evaluating performance of marketing assets, resulting in an increase of click-through rates from 5% to 13% on ads, and 15% to 22% on whitepapers
- Formalized reporting, centralized data, and created redundancies for regular data quality checks leading to a sales pipeline increase of over 20%, as well as a 541% increase in leads

Projects

[Breaking Grad\(ients\)](#) - This Deep Learning project explores the effects of Fast Gradient Sign Method attacks on pre-trained models such as EfficientNet, Data Efficient Image Transformers, and our custom CNN. We show how these models react to FGSM when discriminating between AI generated and naturally generated images.

[Pokemon Team Generator](#) - This Streamlit tool utilizes the Pokebase API to gather detailed Pokemon data, comparing to user inputs and giving a team of Pokemon based on personality matches. The project utilizes NLP techniques such as Bag of Words (BoW), Term Frequency-Inverse Document Frequency (TF-IDF), BERT, GloVe.

Education & Awards

Georgia Institute of Technology - Master of Science – Analytics

- Machine learning, forecasting algorithms, data visualization, and natural language processing (NLP)

Brigham Young University Hawai'i - Bachelor of Science – Computer Science

- Minor in Mathematics, AAS in Business Management

Boy Scouts of America - Eagle Scout

- Developed curriculum for geographic education for a local elementary school