Alfred Prah

Portfolio | LinkedIn | 815-585-6481 | alfredprah@gmail.com

EDUCATION

Master of Science in Data Science — **Vanderbilt University, Nashville, TN**

Bachelor of Arts in Communication of Science and Technology — Vanderbilt University, Nashville, TN

SKILLS

Languages: Python, PySpark, SQL, R, React, Scala, C#, .NET, JavaScript
Databases: Cosmos DB, Snowflake, Redshift, PostgreSQL, Oracle
Data Visualization: Tableau, R Shiny, Streamlit
Big Data Processing & Analytics: Databricks, Azure Synapse Analytics, Snowpark
Specialized Expertise: Causal Inference, Natural Language Processing, Deep Learning, Time Series Forecasting, Probability and Statistical Inference, Machine Learning, Big Data Scaling, Exploratory Data Analysis, Data Science Algorithms, Programming & Simulation, Full-stack Development

EXPERIENCE

Senior Data Scientist, The Planet Group (Microsoft, USANA, Lowe's, Bowlero, Launch) — August 2021 – Present

- Spearheaded a data-driven win-back campaign using Snowflake databases & Snowpark, boosting campaign revenue by 62%.
- Alleviated cold start issues for a data product by 25%, creating and translating UML diagrams into Amazon Redshift database schema, simulating real-world scenarios to populate key tables.
- Reduced latency by 10% by refactoring and optimizing 21 PySpark and Scala notebooks, transitioning the codebase and machine learning algorithms from Databricks to Azure Synapse for Microsoft's Workplace Analytics platform.
- Improved the performance of 4 recommender systems by 60%, implementing a hybrid model (collaborative-filter and content-based) for more personalized recommendations.

Founder & Product Data Scientist, GenAIBro - A Generative AI Learning Platform — January 2024 – Present

- Designed and launched GenAIBro, a full-stack AI learning platform on Azure, integrating robust front-end and back-end systems for seamless user interaction.
- Developed a proficiency evaluation system featuring 270 curated multiple-choice questions, tutorials, and end-to-end Python notebooks, enabling progress tracking and gamified learning experiences.
- Leveraged large language models (LLMs) to automate content processes such as paper and news summarizations, enhancing user engagement and content relevance.

Data Science Intern, GEODIS — January 2021 – May 2021

- Implemented, optimized, and deployed 200+ time series models to forecast volume and labor demands across 37 client warehouses, resulting in $100,000+ in cost savings.
- Performed root cause analysis on 11 "faulty" time series models, implementing solutions that reduced the Root Mean Squared Error (RMSE) by 32% across 300+ models in production.
- Developed and introduced a Python style guide adopted by the internal Data Science team, standardizing coding practices and improving team efficiency.

Data Science Research Assistant, Vanderbilt Data Science Institute & ROCCA Lab — February 2020 - May 2021

- Built a hybrid deep learning model (RoBERTa + Fast.ai) using NLP techniques to predict settlement outcomes in class-action lawsuits with 86% accuracy, analyzing ~3,000 cases and 18,000 PDFs.
- Designed a deep learning classifier using PyTorch to predict civilian sentiment with 81% accuracy, based on text data.
- Created interactive dashboards (Tableau, R Shiny, Streamlit) to visualize the links between civilian-led collective action and conflict trajectories in the USA.
- Developed descriptive social networks to highlight key conflict actors in Sub-Saharan Africa, tracking their affiliations and network connectivity over two decades.

Data Science Intern, OhanaHealth — May 2020 – August 2020

- Designed, implemented, and deployed a hybrid deep-learning recommendation engine using transfer learning to surface job openings and descriptions to thousands of users, achieving a 5% conversion rate for paid subscriptions.
- Conducted A/B testing to analyze user interactions with different website layouts and call-to-action buttons, providing strategic recommendations.
- Boosted click-through rate from targeted ads by 12% by developing user personas and market segment descriptions, enabling more effective ad placements and purchases.

Consumer Behavior Researcher, Vanderbilt Owen School of Management — May 2018 - December 2018

(Psychographics and Emotional Motivators – for Dono)

- Developed and executed research methodology, including survey design, to inform the marketing strategy for Dono, a struggling brand.
- Analyzed survey data and produced actionable insights, leading to a $11,000+ positive cash flow for the brand, which had been in debt three months prior.