# **Harlan Hutton**

# Software Engineer at Google M.S. in Data Science

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### **PROFILE**

Software engineer with a passion for machine learning well-prepared for strategic and collaborative problem solving with a liberal arts skillset of efficient communication, quick adaptation, and attention to detail.

EDUCATION New York University - M.S. in Data Science, May 2022

Relevant coursework: Responsible Data Science, Computational Cognitive Modeling, Deep Learning, Natural Language Processing, Machine Learning & Computational Statistics, Big Data, Text as Data, Probability & Statistics. Member of Women in Data Science. 3.78 GPA.

Rhodes College – B.A. Cum Laude in Business, minor in Mathematics, May 2020 Recipient of the John M. Planchon Award for Excellence in Business, awarded to most outstanding graduating business major chosen by business faculty. Focus in finance. Graduated with 3.81 cumulative GPA, 4.00 major GPA, and 3.80 minor GPA.

**EXPERIENCE** Software Engineer, Google - August 2022 to Present

Member of the Core Machine Learning product area on the TensorFlow Extended team. Working on the open source software library TensorFlow Extended (TFX) that allows users to productionalize their machine learning models at scale.

Data Science Intern, Q2 Software - Summer 2021

Member of data science team at PrecisionLender, a Q2 software company that automates negotiation solutions for banks. Pioneered a client-level recommender system using primarily PySpark that suggests the "next best" product the client should recommend to each of its relationships. Once in production, the model will allow clients to deepen relationships and increase profit through cross-selling. Pre-production work included integration testing and writing unit tests.

## PROJECTS /

Astronomical Image Coaddition with Bundle-Adjusting Radiance Fields - Machine Learning and the Physical Sciences Workshop, NeurIPS 2022

## RESEARCH

As a guest researcher at the Flatiron Institute Center for Computational Astrophysics, worked to apply bundle-adjusting radiance fields to combine, de-noise, and remove obstructions from observations of cosmological objects at different resolutions, seeing, and noise levels - tasks not currently possible within a single process in astronomy.

Million Song Dataset Recommender System - May 2021

Created recommender system using PySpark's ALS method to learn latent factor representations for users and items. Final model produces top 500 songs for each user and is evaluated on mean average precision. Created comparison to a single-machine implementation using lightfm.

Predicting Restaurant Health Violations Using Yelp Reviews - December 2020

Developed classification model to predict restaurants that may violate food and safety guidelines. Created dataset using web scraper that pulled Yelp reviews and combined them with restaurant inspection data. Final model is XGBoost with hyperparameters tuned using cross-validation and a weighted F1 score of 0.856.

### SKILLS

python, R, spark, pytorch, scikit-learn, matplotlib, pandas, numpy, SQL, ggplot, dplyr, git, machine learning, hadoop, data structures and algorithms, probability & statistics, business acumen, written & oral communication, problem solving