GEORGE J.J.T.A. HAYWARD, Optimist

george@hayward.fyi • LinkedIn • HackerRank • Github • Tableau • Law • Finance • Stand-Up

Data Scientist - 9 yrs. experience & training. Impact at Facebook & Google (SQL/Python/R/ML). Skilled orator. Mom worked as a bus monitor; Dad was disabled. They taught optimism, work ethic, & creativity.

EXPERIENCE

Facebook, Messenger   **New York, NY**
Senior Data Scientist, Product Analytics   *2019 - present*

- Led development, testing, & operationalization of new topline battery efficiency metric for 1.2 billion Android users tied directly to user experience via session-retention analysis. Validated session data against user perception via an international survey. Developed Red/Yellow/Green drain levels through statistical analysis. Found 81 million people with unacceptably high battery drain. Presented to leadership & re-focused engineer goaling.
- Created equation determining US iOS messaging primacy. Internally published "astonishing" research on 1) where in the US Messenger was most likely the primary iOS messaging app and 2) hypotheses on why.
- Quantified user impact of Messenger Lightspeed iOS binary size by finding relationship between code slices and cold start time. Presented work at org-wide summit, & laid foundation for binary size federation decisions.
- Led text-based NLP analysis of 1-star & 2-star Messenger reviews in Apple's App Store and the Google Play Store; wrote Python script connecting these reviews to performance, reliability, and efficiency issues.
- Provided statistical analysis in R unblocking an entire engineering team by sizing (95% CI) the impact of an imbalance on a key metric in the A/B test. This enabled the team to ship the product to 165 million people.
- Taught other data scientists to create field surveys and match user perception to data reality on key metrics.
- Directed 20+ person team in 2020 Facebook Hack-a-thon on racial equality making PoliceReformTracker.com.

Hayward Data Science (ghayward.github.io)   **New York, NY**
Data Scientist & Founder   *2019 - present*

- Led dispensary analysis for publicly-traded cannabis holding firm; found 7 key revenue predictors from 3.1k via backward elimination regression; predicted rev. to within $80k via XGBoost; segmented via K-Means clustering.
- Created content-based recommendation Python script via count vectorizers for SKU tags & cosine similarity.

Google, Area120, Tailor (Fashion Tech Startup Within Google)   **San Francisco, CA**
Data Scientist (contract)   *2018 - 2019*

- Built team's first predictive model for customer lifetime value. Analyzed over 200,000 users via R regressions, Excel modeling, logistic regression classifications, and linear optimizations in Google's Learning Powerhouse; built iterative automated Google SQL (BigQuery) scripts to run it; set up a daily report and a dashboard.
- Analyzed A/B test results for 3k users showing that "liked items on sale" was our best push notification.
- Wrote SQL Plx scripts & created automated DAG workflow for an hourly priority score ranking orders on price, target status, & time since placement; briefed Head of E-commerce with automated hourly update email.
- Developed daily email e-commerce report updating team on purchase metrics and created tracking dashboard.
- Ran first-purchase analysis finding that 80% of users, if they purchased, did so in their first 4 days in the app.
- Led customer random sample analysis in R using line-by-line human evaluation to gain customer insights.
- Wrote SQL queries tracking and analyzing OKRs & KPIs including users to convert, response time, & churn.

Hayward Motivational Comedy, Inc.   **San Francisco, CA; New York, NY; Los Angeles, CA; Tokyo, Japan**
Optimist & Stand-up Comedian   *2017-present*

- Headlined at Broadway Comedy Club (NY), raised $700 for charity; booked 4x at Flappers Comedy Club (LA).

DATA SCIENCE, COMMUNICATION SKILLS, & LEADERSHIP

- **Speeches:** Hold The Line, Talk to Em, The Good News, Not By Adversity, J. Smollett, Towards Data Science.
- **Analysis:** SQL (BigQuery, MS SQL Serv., MySQL), Python (pandas, scikit-learn, xgboost, sqlite, numpy, scipy, altair, os, yagmail, beautifulsoup), R, Tableau, Machine Learning, ETL, Google Analytics, AWS Lambda, Excel.
- **ML Projects:** Time Series, A/B Test, Clustering, NLP, Neural Network, Regression & Classification, Playlists.
- **HackerRank:** Python, Gold Level (★★★★★); SQL, Gold Level (★★★★★), Ranked #1 on Global Leaderboard.

INTERESTS

Chess, Gershwin, Notorious B.I.G., J. Dilla, Astrophysics, Fried chicken, Speeches, Stand-up, SQL, Running, Jazz, Happy.

EDUCATION

Codecademy, Data Science Path, *(~350 hours online) Python, Machine Learning, Statistics*		*2019*
Stanford University, JD/MBA in Comedy, *Stanford Law Review, Admitted to CA State Bar and NY State Bar*		*2018*

- Selected Courses: Optimization and Simulation Modeling; Measuring Impact in Practice; Data and Decisions

New Organizing Institute, Data Bootcamp, *Political Campaign Data Management, VAN, GIS, SQL*		*2014*
Harvard College, B.A. in Government, *Black Students Association Political Action Chair*		*2011*