



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

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*Data Scientist - 8 yrs. experience & training. Led Biz Analytics at Google startup (SQL/Python/R). Skilled orator. Mom worked as a bus monitor; Dad was disabled. They taught optimism, work ethic, & creativity.*

## EXPERIENCE

### Hayward Data Science ([ghayward.github.io](https://github.com/ghayward))

New York, NY

*Data Scientist & Founder*

2019 - present

- Led dispensary analysis for publicly-traded cannabis & medical marijuana investment firm; found 7 most important predictors for dispensary revenue out of over 3,100 via Backward Elimination regression; predicted revenue to within \$80,000 via XGBoost; segmented micro-markets via K-Means clustering analysis.
- Identified book revenue trends in Amazon small business; increased monthly sales by 55% & units sold by 43%.

### 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 3,000 users showing that "liked items on sale" was our best push notification.
- Wrote SQL Plx scripts and created the automated workflow for an hourly order priority score to rank orders based on average dollar amount, user target status, and time since placement, so that the most important orders could be placed first; briefed the Head of E-commerce Operations with an automated hourly update email.
- Developed daily email e-commerce report updating team on purchase metrics and created tracking dashboard.
- Ran user first-purchase analysis finding that 80% of users, if they purchased, did so in their first 4 days in app.
- Led customer random sample analysis in R to use line-by-line human evaluation to gain customer insights at scale. Example: I reported to our CEO that 50% of users' fashion choices were inspired by celebrities.
- Created special segments in Google Analytics to show user event flow on mobile; sent methodology to team.
- Wrote SQL queries tracking and analyzing Tailor purchase OKRs and KPIs including users to convert, most profitable brands, most popular clothing type, time to respond, subscriber churn, spam, & many others.

### 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).

### Cory Booker for United States Senate

Newark, NJ

*Fellow, Data, Policy & Advance*

2013

- Analyzed data in NGP VAN database for voter outreach; updated donor database; drafted policy memos.

### Morgan Stanley

New York, NY

*Investment Banking Analyst, Public Finance*

2011-2013

- Built SQL database in MS Access; drafted RFP responses & modeled complex debt solutions for cities/states, including New Jersey, Illinois, Missouri, Georgia, New Hampshire, Tennessee, & Maryland for over \$3.7 bn.
- Modeled complex debt structures and ran quantitative data analysis for the following debt issuances:
  - \$1.32 bn, NJ Trans. Trust Fund Auth. (Nov. 2011); \$847 mm, IL Met. Pier & Expo. Auth. (June 2012).
  - \$94 mm, US Steel Corp. (Aug. 2012); \$250 mm, Alcoa Inc. (Aug. 2012); \$224 mm, Con Edison (Nov. 2012); \$51 mm, ArcelorMittal (Nov. 2012); \$99.7 mm, Entergy AR (Jan. 2013).

## DATA SCIENCE, COMMUNICATION SKILLS, & LEADERSHIP

- **Speeches:** [Talk to Em](#) (500+), [The Good News](#) (300+), [Not Defined By Adversity](#) (400+), [Jussie Smollett](#) (40+).
- **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*, *Passed NY Bar Exam*

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

- Selected Courses: Multivariable Calculus; Calculus, Series, and Differential Equations