GEORGE HAYWARD, Esq.

Full-Stack Data Scientist

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EXPERIENCE

Hayward Data Science   **New York, NY**
Data Expert for Startups & Small Businesses   *2022 - present*
- Coded & designed Sound Recipe app to back up Spotify playlists. Downloads span 10 countries and counting. Set up Google Cloud Functions, Firestore NoSQL databases, automatic BigQuery streams, & Looker dashboard.
- Extended predictive churn/conversion ML system for $8.5 million-backed & acquired startup (Reference Letter).
- Training LLM (Google T5-small Transformer) mimicking dramatic news scraped from Python ETL script.
- Engineered Python recommendation system for a $1 million+ small business, improving its product suggestions.
- Selected as a Mentor on both Peak Mentors and SharpestMinds; commended for "transformational advice."

Meta, Messenger   **New York, NY**
Senior Data Scientist, Product Analytics   *2019 - 2022*
- Promoted to Senior Data Scientist in 1 year, demonstrating exceptional performance.
- Built first-of-its-kind in-production ML anomaly detection system, "*Battery Beloved*." Led project in Meta's Machine Learning Accelerator, automatically debugging battery drain. Saved 100's of engineer hrs. Published, "*Step-By-Step Guide to In-Production Machine Learning Model: Battery Beloved, as example (w/ XGBoost).*"
- Published "*Automate a Python Script at Facebook.*" Praised as: "a foundation for **all Python engineers at Meta.**" Added to "Python @ FB" training docs. Inspired Meta-wide solution, "*Bento Scheduled Notebooks.*"
- Devised and deployed new disk pressure metric, *Weeks Till Full ("WTF)*" for over 2 billion users (Instagram, Messenger, & Facebook App). Developed Orange/Yellow/Red zones for disk pressure in end-to-end message encryption. Named data science lead for cross-functional team & the product manager's "go-to" data scientist.
- Designed first-of-its-kind Performance, Reliability, and Efficiency Quality user survey to connect perception to 'under-the-hood' app metrics, led power analysis, control flow, language editing, and won initial approval.
- 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. Developed Red/Yellow/Green drain levels.
- Led text-based NLP analysis of 1- & 2-star Messenger reviews in Apple's App Store & Google's Play Store.
- Unblocked an entire engineering team by sizing (95% Confidence Interval; statistical analysis in R) 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 users.

Google, Area120, Tailor (Fashion Tech Startup)   **San Francisco, CA**
Data Scientist (contract)   *2018 - 2019*
- Built team's first predictive model for customer lifetime value. Analyzed 200,000+ users via log. regressions & lin. optimizations in R & Google's Learn. Powerhouse; automated GoogleSQL scripts to report & dashboard it.
- Automated hourly order priority score ranking orders on revenue, user status, and time since placement.
- Instituted daily email e-commerce report updating team on purchase metrics and initiated tracking dashboard.
- Ran user first-purchase analysis finding that 80% of users, if they purchased, did so in their first 4 days in app.

Morgan Stanley   **New York, NY**
Investment Banking Analyst, Public Finance   *2011 - 2013*
- Created interest rate databases so team could access data with SQL queries instead of less-efficient Vlookups.
- Provided quantitative analysis and execution support on the following debt issuances and restructurings:
  - $1.32 billion, NJ Trans. Trust Fund Auth. (2011); $847 million, IL Met. Pier & Expo Auth. (2012).
- Executed credit and interest rate analysis and quantitative support on the following corporate debt issuances:
  - $94 million, US Steel Corp. (2012); $250 million, Alcoa Inc. (2012); $224 million, Con Edison (2012).

SKILLS

SQL (ranked #1), Python, R, Swift, ML, XGBoost, ETL, AWS, Looker, Git, Google Cloud, A/B Tests, Automation, Excel.

EDUCATION

Stanford University, JD/MBA
- Selected Courses: Optimization and Simulation Modeling; Measuring Impact in Practice; Data and Decisions

Harvard College, B.A.