

Stephanie Moore

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Summary & Technical Skills

Data scientist with 6+ years of professional experience, including 4+ years in wearable-sensor algorithm R&D. I'm a former collegiate athlete, and I've always been curious about the "why" behind performance, which draws me to the messy, real-world side of wearable health data.

- **Programming & Tools:** Python (pandas, NumPy, Dash, Plotly, scikit-learn, SciPy, statsmodels), SQL, Git, Google BigQuery
- **Signal Processing & Analysis:** time-series analysis, signal quality assessment, artifact detection, interpolation, smoothing/gap-filling, frequency-domain features
- **Statistical Methods:** regression analysis, correlation and error analysis, agreement analysis
- **Domain Experience:** wearable and biosignal data (CGM, activity, sleep), clinical trial data, laboratory diagnostic/ biomarker data, multimodal data pipelines, data quality control

Professional Experience

Data Scientist, Algorithm R&D | Dexcom, San Diego, CA

2022 - Present

- **Wearable sensing feasibility:** Designed and ran an exploratory feasibility analysis of a candidate wearable sensing modality on a pilot dataset. Built a reusable Python framework to evaluate signal stability, detectability, and agreement across multiple wearable devices and a benchmark device, using artifact detection, interpolation of longitudinal time series, correlation and error analysis, and Bland-Altman analysis.
- **Fault detection algorithm:** Designed and evaluated a CGM sensor fault detection module (signal suppression, drift, extended hypoglycemia). Developed and tested feature families (descriptive statistics, baseline, set-point deviation, rate of change) for model development, with detailed false-positive/false-negative reviews, reaching ~83% sensitivity and ~99% specificity in a research environment.
- **Feature development and signal processing:** Contributed to R&D algorithm modules for data validation, data sufficiency, and model evaluation. Updated the feature pool used for modeling and explored frequency-domain features for CGM time series. Developed test cases for data smoothing and gap filling in a commercial consumer product.
- **Early-stage exploration to proof-of-concept:** Led exploratory research on emerging feature areas (sleep/recovery, exercise, nutrition, women's health, glycemic behavior), turning literature review and data-availability assessments into minimum viable feature definitions. Simulated the effect of upstream input estimation errors and missing data on algorithm output, and led technical reviews of in-development algorithms that identified unaddressed risks and next steps.
- **Study design and data collection:** Served as a lead data scientist on multiple clinical trials, including a 156-subject prospective study. Contributed to study request forms defining sensor requirements, data download protocols, and analysis plans that informed study protocols, and translated them into data pipelines, cohort definitions, and QA frameworks supporting executive go/no-go decisions. Curated datasets for a 10+ month study totaling ~800 subjects and 10,000+ sensor sessions.
- **Multimodal data pipelines:** Built a reproducible preprocessing pipeline that combines multiple sensor, laboratory, and participant-reported data streams into standardized, analysis-ready datasets with schema standardization, feature normalization, and automated data quality reports. Ingested and analyzed data from third-party partners and health platforms, including Oura, Apple HealthKit, and Android HealthConnect.
- **Device signal evaluation and cross-functional work:** Analyzed sensor reliability across engineering trials, sensor lots, and wear locations. Worked with hardware, software/firmware, clinical, biostatistics, and data management teams to trace data issues to their source and agree on mitigations before they were built into pipelines.
- **Tools and code quality:** Built internal Python tools, including a Dash/Plotly annotation app for expert labeling of ground-truth datasets and an automated visualization and PDF-report pipeline validating 100+ algorithm test cases. Introduced a Git-based code review template and process, data quality checklist, and team training on data validation. Used AI tooling to automate literature synthesis and QA.

Data Scientist / Senior Business Analyst | Deloitte Consulting, San Diego, CA

2021 - 2022

- Updated and automated predictive models (Python, SQL) for overdose and addiction risk for the NH Department of Health and Human Services. Led use-case development for a government AI platform, which supported future contract acquisition.
- Led stakeholder interviews for a public equity dashboard for a nonprofit client, mapped 4 user personas (government leader, researcher, community organizer, advocate), built user journeys, and prototyped the front end in Miro.
- Scrum Master and lead BA for the Covered CA data warehouse (5 sprints, ~\$600K in enhancements, 1.6M+ users); owned business analysis for its \$2M Snowflake/PySpark refresh (13 JAD sessions, 200-page technical design).

Data Scientist | The Data Standard, San Diego, CA

2020

- Ran LinkedIn market research with custom JavaScript survey tools and visualization to identify industry trends, wrote technical articles on machine learning, and managed team KPIs with Sales and Marketing.

Sports Performance Data Science Intern | UC San Diego Sports Performance, San Diego, CA

2019 - 2020

- Analyzed Catapult Vector wearable sensor data (accelerometry, GPS, heart rate) and force plate data for 200+ athletes across 26 NCAA teams; built Python API ingestion pipelines and dashboards translating sensor streams into training decisions.

Education & Continued Learning

B.S., Data Science | University of California San Diego.

Certificates: Causal Inference with Linear Regression (Udemy), Customer Analytics and A/B Testing in Python (DataCamp)