Miranda Cooper, Analytics Engineer

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SUMMARY

Analytics Engineer & Workflow Optimizer who turns chaotic clinical and nonprofit data into HIPAA-ready, self-serve pipelines with R/Python + Power Automate, cutting manual effort up to 70% and replacing ad-hoc chaos with repeatable, compliant systems.

SKILLS

Core Stack: Python (pandas, numpy, requests), R (tidyverse), SQL, dbt (self-teaching)

Automation: Power Automate, Bash / Zsh Scripting, Windows Task Scheduler

Data Platforms: PostgreSQL, MySQL, REDCap (clinical), REST APIs, Salesforce

Version Control: Git, GitHub, GitLab

Visualization: Power BI, Tableau, Altair, Quarto

Process Design: Workflow Mapping / Documentation, Cross-functional Collaboration, ETL

EXPERIENCE

Data Analytics Engineer - *Michigan Alzheimer's Disease Center, Michigan Medicine*   2023-06 - Present

- Reduced manual entry 40% by engineering daily REDCap ↔ SharePoint pipelines with R and Power Automate.
- Built PEARL, a centralized participant-management platform for research studies: led system analysis, mapped and documented workflows, and automated SharePoint/Power Automate processes that streamline multi-study tracking.
- Accelerated team ramp-up from weeks to days by designing a GitLab onboarding course and reusable code templates that standardize analytics workflows.

Instructional Aide - *University of Michigan, School of Information*   2022-08 - 2023-04

- Collaborated with the teaching team via GitHub to develop Python lessons and implement Gradescope autograders, managing 150+ student submissions.
- Provided code debugging support and facilitated student learning, ensuring a smooth grading process and technical assistance for course participants.
- Supported course operations by managing student data in Canvas, including roster updates, grade tracking, and coordination with instructors to ensure data accuracy and timely feedback.

Professional Services Intern - *EnterpriseDB*   2022-05 - 2023-04

- Built and documented workflow templates for global teams, standardizing onboarding and delivery in a distributed environment.

Development Operations Manager - *World Central Kitchen*   2019-07 - 2021-06

- Led the migration from ActBlue to Salesforce, ensuring seamless data transition, system integration, and the establishment of efficient development processes.
- Administered Salesforce for a $250 M fundraising engine: built ad-hoc dashboards and visualizations that gave executives real-time insight into campaign ROI, donor retention, and disaster-relief cash flow.
- Launched and integrated Classy with Salesforce via custom APIs, automating online receipt workflows and boosting one-click donation conversion by 35 % during high-urgency appeals.
- Supported revenue growth from $10M to $250M by driving data accuracy, system efficiencies, and operational scalability during high-impact periods, such as disaster relief efforts.

Development Operations Director - *City Year Washington, DC*   2018-08 - 2019-06

- Led a cross-functional team of three (Comms, Events, Executive Support), streamlining workflows and performance KPIs to keep campaigns, collateral, and leadership requests moving in lock-step.
- Produced City Year DC's flagship gala and key fundraising events, coordinating vendors, sponsors, and volunteer corps to exceed annual donor-engagement and revenue targets.

Development Operations Manager - *City Year Washington, DC*   2017-08 - 2018-08

- Network data liaison: aligned DC's Salesforce fields, naming conventions, and KPI definitions with national HQ, enabling apples-to-apples reporting across 28 sites.
- Team lead for brand visibility: supervised a Communications Associate, set the social-media calendar, and coordinated email + event collateral to amplify local campaigns.
- National analytics voice: helped design a Power BI network dashboard that gave site leaders real-time fundraising snapshots.

Development Operations Associate - *City Year Washington, DC*   2015-07 - 2017-07

- Guardian of 40k+ Salesforce records: handled daily donor-gift entry, resolved data conflicts, and produced weekly giving/retention reports for the leadership team.
- Executive support hub: managed calendars, donor correspondence, and briefing packets for the Executive Director and two Development Directors.
- Creative collateral producer: built print and digital assets in InDesign/Photoshop for campaigns, volunteer drives, and a 400-guest gala.
- Donor-thank-you optimizations: tightened acknowledgement workflows, cutting turnaround time from weeks to days and improving donor satisfaction.

PROJECTS

PEARL: Centralized Participant Data System

Built and scaled the Participant Engagement and Research Lifecycle (PEARL) platform, automating   2024-04
workflows with Power Automate and Microsoft 365 to streamline multi-study participant tracking. Resulted in 40%
reduction in manual entry and improved consistency of participant records across 10+ concurrent studies.

- R, REDCap, Microsoft 365, Power Automate

Eligibility Rule Engine and Document Automation (R + REDCap)

Developed an R script to aggregate REDCap participant data, automate eligibility evaluation, and   2023-10
generate standardized PDF reports. Reduced manual review time by 50% and improved documentation accuracy
across stakeholder teams.

- R, Batch Scripting, REDCap

Secure PHI ETL Pipeline with R and Power Automate

Automated PHI extraction and REDCap archiving via R and Power Automate. Created structured, low-   2025-01
friction workflows for PHI delivery while maintaining HIPAA compliance and access control.

- R, Task Scheduler, Power Automate

CERTIFICATES

PostgreSQL 13 Certification
EDB (Credential ID: EDB34938)

EDUCATION

University of Michigan, School of Information   2021-08 - 2023-04
Master's of Science - Information (Focus: Data Analytics)