William N. Sparrow
Data Analyst
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Data Analyst with a strong background in Python, SQL, and data visualization. Experienced in building predictive models, creating interactive dashboards, and streamlining data pipelines to drive business decisions. Adept at collaborating cross-functionally to develop scalable solutions that enhance efficiency and user engagement.

SKILLS AND INTERESTS

- Python, SQL (MySQL, Postgres, Spark), Snowflake, Databricks, Tableau, Salesforce, HubSpot, Google Analytics, GitHub, Microsoft Excel & PowerPoint, Project Management, Communication
- UVA Men's Club Basketball (President & Treasurer), Trivia Host, Hip Hop Dance Team Member (OBG)

PROFESSIONAL EXPERIENCE

Ledger Investing, *San Diego, CA (remote)* *July 2022 – Aug 2024*
Software Engineer & Product Manager
- Developed a React-based investor portal application managing $300B in premium; implemented new features including the ability for potential investors to indicate interest in a security, triggering workflows like email notifications, a "cart" for tracking selections, and in-app messaging that improved click-through rates by 35%.
- Created Google Analytics dashboards to track user engagement and optimized APIs to cut page load times by 40%.
- Built a Capital Markets database by defining schemas, writing SQL scripts, and setting up testing/logging, cutting query execution time by 50% and improved data accessibility for 3 microservices (reporting, analytics, platform).
- Collaborated with sales teams to create ad hoc visualizations in HubSpot, mapping potential leads throughout the capital application process, leading to a ~15% increase in lead conversion rates and improved sales efficiency.
- Led roadmap development, authored detailed product requirement documents, and successfully launched 3 major features (instant quote, historical and live market data feeds, in-app messaging) that reduced user drop-off by 20%.

Accenture, *Arlington VA* *Sep 2017 – June 2022*
Data Analyst
- Built several Tableau employee time-to-hire dashboards, providing key insights that enabled process optimizations, increasing hiring by 50% and reducing candidate time-to-hire by 30 days. Managed two junior developers while leading requirements gathering, wireframing, and UAT sessions with clients to ensure data accuracy and usability.
- Developed Pythonic predictive models, including a Cox proportional hazards model, and deployed with Jenkins to estimate processing times for several USCIS application forms, analyzing timelines for 8 million annual applicants.
- Performed exploratory data analysis in Jupyter Notebooks to clean, transform, aggregate, and visualize data to identify trends and support modeling. Built ETL pipelines in Databricks to load data into Postgres, enabling both internal analysis by Big Data and cross-functional teams, and external use, such as showing wait times to applicants.
- Helped develop a gradient boosted classification model to select the best response from 60 templates for FAQs. Worked with front-end teams to display responses on the website, providing applicants with faster answers.
- Built React application with D3.js, analyzing 20,000 web vulnerabilities weekly. Worked with the Linux team to deploy the app by writing and translating requirements into an Ansible job, saving clients ~10 hours per month.
- Wrote Python scripts to automate sprint metrics (velocity, burndown, cycle time, etc.) saving the team 4 hours per week.

EDUCATION AND CERTIFICATIONS

University of Virginia, College of Arts and Sciences, *Charlottesville, VA* Aug 2013 – May 2017
Bachelor of Arts in Economics; Bachelor of Arts in Psychology
Project Management Institute *iss.* Feb 2023 – *exp.* 2026
Certified Associate in Project Management (CAPM) · Credential #3418104