Rory Hartong-Redden

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## Summary

Accomplished data scientist with a strong expertise in data analysis and machine learning. Proficient in running SQL queries to swiftly address business inquiries, cleaning and merging datasets, building robust machine learning models, and deploying these models within SaaS environments.

## **Tools**

Python, Git, Shell, Terraform, Elixir SQL, Metabase, Postgres, Spark, Hadoop, S3 Docker, AWS, CircleCI, Github CI/CD Jupyter Notebooks, PyCharm, ChatGPT

Python Tools: Scikit-learn, XGBoost, TensorFlow, pandas, Flask, numpy, Matplotlib, pytest, Spark ML

## **Professional Experience**

• SyBridge Technologies (Fast Radius)

Boulder, CO Aug 2021–May 2024

Technical Manager and Data Scientist

- Led the data science team of 3 as we grew before going public, Nasdaq:FSRD
- Ensured revenue-critical API availability by developing high-quality code and comprehensive test suites, enabling \$10M per month in instant quotes
- Crafted SQL queries to collect training data, monitor model accuracy, and answer business questions
- Provided statistical analysis and visualization support for R&D projects involving diverse data types using Jupyter Notebooks with Python
- Aligned with cross-functional teams to develop manufacturing process cost models and established a margin model

• Fast Radius Chicago, IL
Data Scientist Feb 2020-Aug 2021

- Tech stack: Python, SQL, Scikit-learn, Flask, Docker, AWS ECS, Datadog
- As the founding data scientist, deployed the first machine learning model progressing from data exploration to data munging to production deployment with Docker
- In the startup environment I dipped into the Elixir backend, JavaScript frontend, Dockerfiles, or Terraform infrastructure as needed to fix bugs and remove blockers

• runtastic Linz, Austria

Data Engineer Oct 2018–Sep 2019

- Tech stack: Python, Spark, Hadoop, Flume, Oozie, Hive, RabbitMQ
- Led the design and deployment of a "People You Might Know" data product using Spark, scikitlearn, SparkML, and Elasticsearch
- Built a data exchange prototype with Apache Kafka and a production system with AWS S3

• Allstate

Research Analyst

Menlo Park, CA

Jul 2016–Sep 2018

- Tech stack: Python, pandas, TensorFlow, Spark, Julia, PostGIS
- Trained machine learning models and analyzed telematics and crash data for risk prediction
- Co-authored a paper on our research "Real-time Prediction of Intermediate-Horizon Automotive Collision" with the Stanford Intelligent Systems Lab

## Education

• University of California, Santa Barbara MS Mechanical Engineering

Santa Barbara, CA Dec 2014

- Tech stack: MATLAB, SolidWorks, LATEX
- Thesis research: Designed and built an experiment to measure Faraday waves using a novel image processing technique for 3D high-speed mm-resolution measurement over a surface area of  $225\,\mathrm{cm}^2$
- University of California, Santa Barbara BS Physics & BS Mechanical Engineering

Santa Barbara, CA June 2010