# Rory Hartong-Redden

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### Summary

Experienced data scientist with accomplishments across scientific research, data engineering, and software engineering. Core competencies: Python, ML, and statistical analysis, complemented by 3 years of management experience.

#### Skills

Programming Languages: Python, SQL, R, Shell DevOps: GitHub, AWS, Docker, CI/CD, CircleCI Data Processing: Postgres, Spark, Hadoop, S3, Airflow, Databricks

Python Tools: pandas, scikit-learn, Flask, XGBoost, TensorFlow, PySpark, Matplotlib, Jupyter

# **Professional Experience**

• Allstate

Lead Data Scientist

Menlo Park, CA

Jan 2025-Present

 Consulting within the data science organization to move workloads onto AWS and incorporate best practices like CI/CD, testing, and using infrastructure as code

## • Fast Radius (SyBridge)

Boulder, CO

Senior Data Scientist / Technical Manager

Aug 2021-May 2024

- Led a 3-person data science team, partnering with product and engineering teams, and shipped key software products like part analysis that were featured in the FSRD IPO presentation
- Ensured API uptime of our revenue-critical service, facilitating \$10M in monthly instant quotes
- Trained and deployed a random forest regression model of CNC cycle time for CNC instant quoting, providing the majority of the revenue of our site
- Predicted shipping costs using mixed integer programming to pack boxes as input to the UPS API

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

- Tech stack: Python, Flask, Docker, AWS ECS, Datadog, Metabase
  - Founding data scientist: developed, deployed, and maintained the first cost-prediction regression models, contributing to the early growth of the platform
  - Contributed to the "Manufacturing and Development Platform" patent, laying the groundwork for the company's software architecture
  - In the startup culture I dipped into the Elixir backend, JavaScript frontend, or Terraform infrastructure to fix bugs and remove blockers

• runtastic Linz, Austria
Data Engineer Oct 2018–Sep 2019

- Tech stack: Python, SQL, Spark, Hadoop, Flume, Oozie, Hive
- Designed and developed a "People You Might Know" feature using Python, Spark, and Hadoop, improving user retention
- Built an ETL pipeline to anonymize customer data for GDPR compliance
- Led the design and development of a data exchange prototype using Apache Kafka and AWS S3

• Allstate Menlo Park, CA
Research Analyst Jul 2016–Sep 2018

Tech stack: Python, pandas, TensorFlow, Spark, Julia, PostGIS

- Developed and trained machine learning models using Python, pandas, TensorFlow, and Spark to predict risk using customer GPS data, public crash data, and synthetic data
- Co-authored a research paper with the Stanford Intelligent Systems Lab: "Real-time Prediction of Intermediate-Horizon Automotive Collision"

# Education

• University of California, Santa Barbara MS Mechanical Engineering Santa Barbara, CA Dec 2014

- Tech stack: MATLAB, SolidWorks, IATEX
- 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