Rory Hartong-Redden

November 5, 2024 | Boulder, CO | roryhr@gmail.com | linkedin.com/in/rory-hartong-redden | roryhr.com

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. Throughout my career I've focused on solving the right problem the right way, understanding my data, writing excellent code, and being a good teammate.

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

- **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
  - Performed time-series analysis on manufacturing IoT data to support R&D efforts
  - Used SQL to extract and analyze data, monitor model performance, create dashboards, and answer business questions

- **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**   Santa Barbara, CA
  MS Mechanical Engineering   *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 $225\,\text{cm}^2$

- **University of California, Santa Barbara**   Santa Barbara, CA
  BS Physics & BS Mechanical Engineering   *June 2010*