

FREDERICK DOUGLAS PEARCE

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SUMMARY

Data scientist with a diverse technical background, a passion for problem solving, and a knack for data storytelling. I have extensive experience gleaning actionable insights from data through coding (e.g. Python, SQL), communicating results to technical and non-technical stakeholders through products, reports, dashboards, and presentations.

SKILLS

Data: Wrangling, Validation, Analysis, Visualization, Modeling, Reporting, Storytelling, Time Series, Images, Geospatial

Analytics/ML: Metric Development, Feature Engineering, Supervised and Unsupervised Machine Learning, Anomaly Detection, Algorithm Development, Prompt Engineering

Code/Stack: Python (numpy, pandas, geopandas, scipy, scikit-learn, keras, seaborn, plotly), SQL, MATLAB, PostgreSQL, PostGIS, Redshift, Elasticsearch, git, Superset, Docker

Agile/Collaboration: Scrum, Kanban, Jira, Confluence, GitHub

WORK EXPERIENCE

Data Scientist

June 2022 to present

Freelance (Part-time)

Supporting startups in analytics and reporting tasks, developing a startup idea in the QA + AI space, and building personal projects using **Python**, **SQL**, and **Machine Learning**

Strategic Data Analyst

February 2021 to June 2021

Portland State University Foundation, Portland, OR

Member of data and IT team focused on supporting University fundraising efforts through report development and data modeling for diverse business groups

Data Scientist

July 2018 to May 2020

Semanticbits, Herndon, VA

Member of remote, Agile data team supporting Analytics and Reporting for leadership of CMS's Quality Payment Program (QPP)

- Delivered diverse data products using **SQL**, **Python**, and **Superset**, including
 - Development and validation of data tables for public-facing reports
 - Dashboards with interactive visualization of KPIs for management
 - Designed and maintained data mart objects supporting QPP products, e.g. Management Dashboards, Clinician Data Lookup Tool, Policy Simulator
- Transitioned management dashboards from **PostgreSQL** to **Redshift** across all tiers, reducing average page load time to well below 2 second target, a >70% decrease!
- Validated accuracy of data and reports, including implementation of automated data checks and reviews of production **SQL** and **Python** code

- Presented sprint deliverables to program leadership, and gathered feedback for bug fixes and new features
- Trained external teams and potential customers on data model, metric definitions, and use of platform tools for self-service analytics
- Member of hiring team for over 1 year: conducted dozens of phone screens and technical interviews, plus I created a technical interview for a BI role

EDUCATION

- **Coursera:** Practical Data Science Specialization (AWS SageMaker), Deep Learning Specialization, Machine Learning, Scrum Master Specialization, etc
- Lean and Agile Principles certificate from **Portland Community College, May 2018**
- **Ph.D.** in Geophysics, **Massachusetts Institute of Technology, February 2015**

VOLUNTEERING

- Volunteer Scrum Master for AI & Agility Speaker Series, **AgilePDX, June 2024 to October 2024**
- Volunteer technical evaluator for mock interviews of **Emerging Leader PDX** candidates, **February 2021**
- Volunteer data scientist and subject matter expert for **Hack Oregon's** Disaster Resilience Project, **March 2018 to July 2018**
- Presenter for the **Portland Machine Learning Meetup, February 2018**¹

¹ Slides available at slideshare.net/FrederickPearce/data-science-view-of-seismic-imaging