

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