

Matt Fergoda

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I'm a full-stack software engineer with experience building machine learning and analytics-based product features. My unique skill set includes deep, hands-on experience with data science and machine learning, building data pipelines and cloud infrastructure to support analytics, and developing APIs for serving models in production. I'm a versatile problem-solver and I'm constantly learning and applying new skills and technologies.

TECHNICAL SKILLS

Languages: Python, Javascript, SQL, HTML, CSS

Frameworks: Flask, Django, FastAPI, Express, React

AWS: S3, ECR, ECS, RDB

Azure: DataFactory, Data Lake, Blob Storage, SQL, Databricks (PySpark)

Machine Learning / Data Science Tools: Sci-Kit Learn, XGBoost, Tensorflow, pandas, NumPy, vector databases, retrieval-augmented generation

RECENT PROJECTS

AI-Powered Semantic Image Search Engine

February 2024

[Blog Post](#) | [Live Demo](#) | [GitHub \(Frontend\)](#) | [GitHub \(Backend\)](#)

- Enable users to search 25,000 images based on their content by leveraging a large, multimodal AI model ([try it out!](#)).
- Containerized and deployed the API on an AWS ECS cluster with a load balancer and SSL certificate to enable HTTPS and a custom domain.

App for Browsing Jobs and Companies

December 2023

[Live Demo](#) | [GitHub \(Frontend\)](#) | [GitHub \(Backend\)](#)

- Built a RESTful backend in Express with JWT-based authentication, request body validation with JSON Schema, and 100% test coverage including unit and integration tests.
- Designed and developed a mobile-friendly React frontend with maintainable, modular components and a professional look-and-feel.

EXPERIENCE

Software Engineer (Volunteer)

February 2024 - Present

Live Music Project (livemusicproject.org)

Seattle, WA

- Collaborate with the Chief Product Officer and other engineers to build a major feature for a production Django codebase that connects 14k unique monthly users nationally with local live music events and free ticket giveaways.
- Optimized React AJAX calls to speed up dashboard load times by 95x.
- Cleaned, normalized, and migrated historical data the production Postgres database to enable end users to see analytics related to historical free ticket giveaways.

Data Scientist

Aug. 2022 – April 2023

Advata (Healthcare Tech Startup)

Bellevue, WA

- Prototyped, built, deployed, and maintained a machine learning product feature for finding common causes of healthcare claims denials, saving our company \$84,000 / year and shipping to 13 of the largest hospital systems in the country.
- Built and maintained ETL and ML training pipelines (> 10M rows) in Azure Databricks and PySpark to support analytics product features for one of the largest health systems in the country.
- Owned collaboration with a cross-functional team including a VP, software engineers, and product leads to develop and maintain analytics product features.

Data Scientist

May 2021 – July 2022

*Valence Consulting (now Kopius)**Bellevue, WA*

- Rapidly prototyped machine learning (ML) models in Python and Databricks for finding the root causes of healthcare claim denials for one of the largest health systems in the country, affecting billions of dollars of customers' annual revenue.

Data Scientist

Aug. 2018 – April 2021

*Hitachi Consulting**Bellevue, WA*

- Engineered a machine vision solution as part of an industrial machine vision solution for a large plant-and-equipment contractor with < 1s inference times on CPU edge devices.

EDUCATION

Rithm School

2023

Full Stack Web Development Bootcamp

University of Puget Sound

2014-2018

Bachelor of Science, Physics, Summa Cum Laude

Tacoma, WA