Harrison Lanier

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Skills

Programming Languages: Python, Java, Javascript, SQL
Frameworks: Pytorch, MLFLow, Triton, Prefect, Airflow, Kafka, Jupyter, Flask, PySpark, Git, Docker, Kubernetes
Cloud: GCP (Cloud Run, Cloud Build, Cloud Run Functions, BigQuery), AWS (Sagemaker, ECS, EKS, Lambda, S3, RDS, SAM)
Domains: AI, Machine Learning, Deep Learning, MLOps, Computer Vision

Experience

Senior Machine Learning Engineer, Saavor Inc. – Remote July 2025 – Present

- Designed and deployed an edge, multi-stage computer vision system using detection, feature embeddings, and FAISS similarity search, improving item-level accuracy across 160+ classes to over 98%.
- Built an end-to-end MLOps pipeline to automate dataset creation, model training, batch inference, and evaluation, cutting manual labeling by 32%.

Data Engineer, Yes Energy – Chicago, IL April 2024 – June 2025

- Led a full redesign of the company's data collection architecture (Spring Boot, Kafka, Kubernetes), reducing time to build new data collection pipelines by 54%.
- Owned and maintained an internal API that cut pipeline deployment time by more than 50%.

Clickvoyant – Remote

Director of Data Science June 2023 – April 2024

- Enhanced performance of AWS EKS cluster, resulting in a 45% reduction in report generation time while supporting a 400% increase in data processing capacity.

Data Engineer February 2023 – June 2023

- Achieved a 49% reduction in cloud infrastructure costs by migrating the data application from KNIME to an AWS EKS cluster, using Airflow for job scheduling and PySpark for data processing.
- Engineered ETL modules to extract data from GA4 into AWS S3 buckets, conducted in-depth data analysis using statistical packages like scikit-learn, and crafted automated client reports including visualizations of the insights.

Co-Founder & CTO, Parkster.ai – Chicago, IL August 2022 – February 2023

- Implemented a real-time parking availability detection model using Pytorch, achieving 92% accuracy in predicting the status of over 200 parking spaces.
- Developed and deployed a GCP Cloud Run service that extracted real-time parking spot pricing data from over 2,000 garages, stored it in BigQuery, and served a customer-facing website.

Research Assistant, SLU Computer Vision Lab – St. Louis, MO June 2022 – August 2022

- Finetuned a PyTorch model to detect furniture in hotel room images for TraffickCam, a project employed by the National Center for Missing and Exploited Children: traffickcam.com

Projects

Home Lab

- Built a virtualized home lab using Proxmox and TrueNAS, hosting a secure Tailscale VPN, a family-facing Plex server, and an automated Home Assistant instance on isolated VMs.

TTP Scanner ttpscanner.com

- Developed a GCP Cloud Run service that scrapes the Trusted Traveler Program website every 10 minutes, checks BigQuery for newly opened appointments, and instantly alerts users via SMS or email when availability appears.

Education

University of Illinois Urbana-Champaign – Master of Computer Science in Data Science December 2026
Saint Louis University – Bachelor of Science in Data Science May 2022