Hesam Pakdaman

hesampakdaman

Programming languages

Go | Python | Lisp | Rust

Backend engineer with experience in developing scalable distributed systems, focusing on fault-tolerant event-driven architectures. Enjoys hexagonal architecture and domain-driven design to build adaptable software. Has prior experience with artificial intelligence, specializing in developing machine learning systems.

Experience

Einride

Backend Engineer
Aug 2024—Feb 2025
Optimized legacy data flows and introduced an event-driven architecture for scalable telemetry processing. Restructured the codebase for better adaptability. Reduced integration test time and improved observability with structured error reporting. Authored ADRs to standardize logging.
GCP | gRPC | PostgreSQL | Pub/Sub

H&M Group

Backend Engineer
Mar 2023—June 2024
Designed and implemented new microservices, introducing event-driven patterns like the outbox pattern. Contributed to backend architecture discussions and feature development in the order flow, including order moderation and partial fulfillment handling.
k8s | Kafka | MongoDB | PostgreSQL

Budbee

Machine Learning Engineer
Apr 2022—Feb 2023
Improved models for package size classification and prototyped a model for better drive-time estimates. Ported a segmentation model from Java to a microservice in Python. Developed CLI tools for AWS labeling jobs and created reusable database libraries to eliminate redundant code. Acted as temporary team lead for three months, coordinating engineering efforts in the absence of managers.
LightGBM | Metaflow | MySQL | PyTorch

Entecon

Machine Learning Engineer
Feb 2021—Mar 2022
Consulted for a California-based client, ensuring data quality through an extensible scoring library for dataset validation. Provided data insights to the team and developed a library to compute metrics for 1D video segmentation, improving accuracy in distinguishing programs from commercials. Built a smoothing library to refine model outputs, reducing classification noise and improving prediction consistency.
Matplotlib | NumPy | Pandas | PyTorch

DING

Machine Learning Engineer
Jan 2018—Feb 2021
Developed a real-time object detection system for self-service fridges, enabling automatic product recognition using mounted cameras. Built a data annotation pipeline with feedback integration and optimized model training time. Evaluated and selected camera hardware, ensuring optimal placement. Integrated the detection system with the company's ecosystem, automating recognition when fridge doors opened.
CUDA | FLIR | NumPy | PyTorch

Education

KTH Royal Institute of Technology
Civilingenjör i Teknisk fysik
- 2015—2018 MSc. Computer Science
- 2012—2015 BSc. Engineering Physics