# Hesam Pakdaman

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### 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



## 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.





#### **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



#### 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 IoU 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



#### Machine Learning Engineer

Jan 2018—Feb 2021

Hired at DING as a consultant for Convini, a Swedish company providing workplace food solutions through self-service stations. I built a deep learning system using cameras mounted on fridges to detect products customers selected.

CUDA FLIR NumPy PyTorch

## EDUCATION



#### KTH Royal Institute of Technology

Civilingenjör i Teknisk fysik

- 2015—2018 MSc. Computer Science
- 2012—2015 BSc. Engineering Physics