

# HESAM PAKDAMAN

 [GitHub](#)

## 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 multiple legacy flows, with the best improvement reducing execution time from 30s to 200ms. Reduced integration test time for the team's main service from 40s to 5s. Introduced an event-driven architecture for scalable telemetry processing and restructured the codebase for better adaptability. Improved observability with structured error reporting and 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 developed features in the order flow, such as order moderation and partial fulfillment.

[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 IoU 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