Kaan B Ph.D.
AI & ML Engineer

Espoo, FINLAND

ABOUT ME

As an AI & ML Engineer, I deliver end-to-end GenAI and ML solutions, bridging data engineering, advanced modeling, and user-facing applications. I have a proven record of building scalable, production-grade AI systems—from data pipelines and model training to real- time API and UI delivery. My expertise spans predictive modeling, data science, and large-scale data workflows, with a strong focus on automation and cost optimization.

- AI Solutions: Built and deployed AI applications using open- source frameworks and Azure AI Services. Integrated models into scalable systems using FastAPI and React. Deployed production- grade GenAI services to end users.

- Computer Vision: Fine-tuned YOLO models with PyTorch for efficient object detection, significantly boosting performance and resource utilization. (https://www.telia.fi/telia-yrityksena/medialle/epress?articleId=43c5024c-4a58-4218-97ae-e8fee02291e7)

- Energy-Saving ML Models: Spearheaded the creation of ML models for energy conservation, reducing carbon footprints, and optimizing energy use for repeatable routes. (https://www.rewake.fi/robi)

- ETL Process Automation: Automated large-scale ETL pipelines (Databricks, Snowflake, Azure Data Engineering); processed and cleaned billions of records.

- Stock Capacity and Sales Forecasting: Designed forecasting models processing billions of ERP data rows with Azure DS/ML Services, Databricks, Apache Spark, Snowflake, and MLflow.

- CI/CD Practices: Implemented CI/CD pipelines and robust quality assurance processes, ensuring data reliability and seamless integration across workflows.

- Predictive Modeling: Built predictive ML models in Python using AWS & Azure DS/ML Services, Databricks, MLflow, Airflow, Docker, and GitHub.

- Model Explainability for Financial Data: Developed a predictive model for the 'Model Explainability Toolbox for Financial Institutions' project. (https://decitech.com/model-explainability-toolbox-tips-techniques-interpret-black-box-models/)

- Cost Optimization: Reduced Databricks costs by 70% through optimized SQL, Python, PySpark code, clusters, and workflows.

- Data Visualization & Dashboarding: Advanced in SparkSQL and PySpark for handling large datasets and creating interactive dashboards with Tableau and PowerBI for data-driven insights.

- Education & Knowledge Sharing: Lead mentoring for data professionals, delivering DS, ML, and MLOps courses to foster continuous learning.

- Above all, I am committed to innovation, continuous improvement, and professional growth.

WORK HISTORY

Role	Period	Company
AI & ML Engineer	2023 - Now	Rewake Oy
Data & ML Engineer - Consultant	2022- 2023	Deci Technology
Data Scientist Freelancer	2019- 2022	Remote
Data Analyst - Consultant	2017- 2019	Remote

SKILLS & PROFICIENCIES

- Generative AI: Designed, fine-tuned, and deployed LLM and RAG-based applications, including custom embedding pipelines, tokenization, vector search, and orchestration for agentic AI workflows.
- Deep Learning & ML Engineering: Advanced with PyTorch, TensorFlow, Keras, and Scikit-Learn for computer vision, NLP, and predictive modeling. End-to-end MLOps with MLflow, Docker, Airflow, and CI/CD (GitHub Actions, GitLab).
- Data Science & Analytics: Experienced in exploratory analysis, feature engineering, and supporting end-to-end model development for AI/ML solutions.
- Cloud & ML Platforms: Expert in deploying scalable ML systems on AWS (SageMaker, Lambda), Azure ML Services, and hybrid cloud solutions.
- Data Engineering & Pipelines: Designed and automated large-scale ETL and data workflows using Databricks, Snowflake, Spark, and Azure Data Engineering tools. Optimized pipelines for performance and cost.
- Database Technologies: Deep knowledge of SQL and NoSQL (MongoDB, DynamoDB, Cosmos DB, etc.) for structured and unstructured data.
- Model Serving & API Integration: Production deployment of models with FastAPI, Flask, RESTful APIs, ensuring robust integration with products and services.
- Visualization & Insights: Delivered interactive dashboards and analytical reports with Tableau, and PowerBI.

EDUCATION

- Ph.D.Michigan State University United States

CERTIFICATES

- Deep Learning AI - Generative AI with LLMs
- Databricks -LLMs Application through Production
- Deep Learning AI - Deep Learning Specialization
- Deep Learning AI - Natural Language Processing Specialization
- IBM - Machine Learning Professional Certificate
- Databricks -Certified Data Engineer Professional
- AWS - Certified Solutions Architect Associate
- Snowflake - SnowPro Core Certification
- IBM - Data Science Professional Certificate
- Microsoft AZURE Data Scientist Associate Specialization
- IBM - Applied Data Science Specialization

SKILLS

- Cloud Computing
- Data Engineering
- Data Modeling
- Database Management System (DBMS)
- Data Warehousing
- Snowflake Cloud
- Confluent
- Artificial Intelligence (AI)
- Cassandra
- Database Administration
- Airflow
- Large Language Models (LLM)
- MLflow
- Generative AI
- Databricks
- Apache Kafka
- Snowflake
- PySpark
- Apache Spark
- Azure Cosmos DB
- Kubernetes
- Azure Databricks
- Agile Methodologies
- Project Management
- Docker
- MLOps
- Amazon Web Services (AWS)
- Python (Programming Language)
- Machine Learning
- SQL
- Data Science
- Deep Learning
- Data Visualization
- Data Analysis
- Research
- Object-Oriented Programming (OOP)
- Microsoft SQL Server
- Tableau
- IBM SPSS
- MySQL
- Git
- Microsoft Excel
- TensorFlow
- Keras
- Teaching
- Machine Learning Algorithms
- Natural Language Processing (NLP)
- A/B Testing
- NoSQL
- MongoDB