Ivan Evdokimov

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Professional Summary

Machine Learning Engineer with 4+ years deploying enterprise-scale ML and GenAI solutions into production. Expert in building end-to-end MLOps pipelines with model governance, drift detection, and automated retraining on AWS. Proven track record taking models from experimentation to production, processing 100K+ sensitive datasets with 95%+ accuracy while ensuring regulatory compliance and scalable deployment.

Experience

Software Engineer (Machine Learning), University of Essex — Colchester, UK Nov 2025 — Present

- Architected production-grade CI/CD pipeline for AI-powered development workflow using Lovable (AI code generation platform), GitHub Actions, and Vercel, enabling automated deployment of AI-generated codebases with 90%+ code generation rate and weekly release cycles.
- Designed automated testing and quality assurance framework adapted for AI-generated code, implementing validation pipelines that reduced manual code review time by 70% while maintaining production stability and security standards.
- Developed end-to-end MLOps infrastructure for multi-tenant SaaS platform serving global B2B companies, reducing engineering overhead by 60% and accelerating feature delivery from monthly to weekly releases through AI-driven development automation.

Software Engineer (Machine Learning), UK Data Service — Colchester, UK Jan 2023 — Oct 2025

- Trained, fine-tuned, and deployed domain-specific GenAI, scikit-learn and PyTorch models, and model hierarchies using Hugging Face, vLLM, and Ollama for automated metadata classification and disclosure risk assessment, achieving 95%+ accuracy on 100K+ sensitive social science datasets.
- Designed end-to-end serverless ML infrastructure on AWS (Lambda, Step Functions, EFS) with automated model retraining pipelines, reducing manual data validation workload by 50% and enabling non-technical staff to process complex datasets independently.
- Optimized statistical disclosure control algorithms by migrating from R to C++ using bitmask techniques, achieving 11x performance improvement and enabling real-time processing of datasets with 100k+ records.

Research Officer and ML Instructor, University of Essex — Colchester, UK Oct 2021 — Dec 2022

- Migrated quantitative macroeconomic models from MATLAB to C++, reducing simulation runtime by 8x for academic research collaboration with MIT and University of Oslo.
- Taught Data Structures & Algorithms, C/C++, and Machine Learning to 100+ undergraduate and postgraduate students, achieving 4.7/5.0 average course rating.

Projects

MTG: Cards Reader: ivan020.github.io/MtgRecognizer/

- Deployed OCR pipeline using Python (FastAPI), C++, and PostgreSQL on Raspberry Pi with EasyOCR, optimized through quantization and lazy loading, achieving 95%+ recognition accuracy while serving 50+ daily users on resource-constrained hardware, with low lantency.

BWA: Bayesian Weighted Model Averaging

- Developed scikit-learn wrapper implementing Bayesian model averaging for time-series forecasting, achieving 7% improvement in prediction accuracy over the benchmark model, as is documented in the peer-reviewed scientific journal.

Education

University of Essex, PhD in Computational Finance Oct 2021 — May 2025

- Developed transfer learning framework using PyTorch for Bayesian model averaging to forecast financial variables, published peer-reviewed papers at international AI conferences (INNS), and released open-source forecasting package adopted by external research teams.

University of Essex, MSc in Financial Econometrics Oct 2020 — Sep 2021

- Built agent-based financial simulation in C++ modeling macroeconomic dynamics under negative interest rates, based on peer-reviewed research.