Ivan Evdokimov

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Experience

Software Engineer (remote), University of Essex — Colchester, UK Nov 2025 — Present
- Built a C# AI-powered data collection system integrating Mistral LLM and Microsoft Power Platform, designed to store, validate and analyze operational data, replacing the manual spread-sheet process.
- Created LLM-driven data extraction and summarization pipelines to convert unstructured field inputs into structured datasets for downstream analytics and compliance.
- Delivered CI/CD pipelines for an AI-generated + human-reviewed codebase, automating GitHub and Vercel deployments and enabling weekly releases with lower engineering overhead and higher deployment reliability.

Software Engineer (part-time), UK Data Service — Colchester, UK Jan 2023 — Oct 2025
- Developed Python and Javascript MCP applications using fine-tuned Hugging Face LLMs (via vLLM and Ollama) to automate data validation, disclosure risk checking, and metadata enrichment, allowing non-technical analysts to process complex datasets independently.
- Built end-to-end AI systems for automated metadata classification and statistical disclosure control, deployed on AWS (Lambda, Step Functions, EFS) and Docker, enabling secure, scalable processing of sensitive social-science datasets.
- Refactored and optimised statistical disclosure control algorithms from R to C++, using bitmask-based techniques to dramatically improve runtime performance and scalability for large datasets.

Research Officer and Laboratory Assistant, University of Essex — Colchester, UK Oct 2021 — Dec 2022
- Assisted in analytical solution of the quantitative macroeconomic model, in collaboration with academics from the University of Oslo and MIT.
- Translated research models from MATLAB and Python into high-performance C++, enabling faster, more scalable macroeconomic simulations suitable for large scenario sweeps and experimentation.
- Taught and mentored students in Data Structures & Algorithms, C/C++, and Machine Learning at undergraduate and postgraduate level.

Analyst Intern, Beyond Borders Investment Strategies — Boston, MA, USA May 2020 — Sep 2020
- Performed time-series and econometric analysis to quantify ETF exposure to currency and commodity price movements.
- Developed a Java application to automatically extract financial data from PDFs into CSV format, replacing a fully manual workflow.

Projects

MTG: Cards Reader: ivan020.github.io/mtgFront/
- The Optical Character Recognition (OCR) project, which scans the photos of Magic the Gathering (MTG) cards and outputs the information about a card along with its most up-to-date price on the secondary market with approximately 50 users daily.
- The backend API is written in the Python and the C++ programming languages, using a PostgreSQL database and is hosted on the Raspberry Pi server, with frontend written in Javascipt.

BWA: Bayesian Weighted Model Averaging
- A wrapper around the scikit-learn and statsmodels Python packages to compute the weighted average of models, for time-series data forecasting.

Education

University of Essex, PhD in Computational Finance Oct 2021 — May 2025
- Developed a transfer-learning-based Bayesian model averaging framework to forecast fundamental financial variables, quantitative models for improved predictive performance.
- Built an open-source financial processing package adopted and forked by external developers.
- Published peer-reviewed papers in international AI conferences and scientific journals on my the thesis project.

University of Essex, MSc in Financial Econometrics Oct 2020 — Sep 2021
- Built a C++ agent-based financial simulation modelling banks, households, and firms under dynamic and negative interest-rate regimes, based on peer-reviewed economic research.