

Noel Milton

AI Systems · Model Evaluation · AI Assurance & Governance

Manchester, UK · EU + UK Right to Work · Bilingual English / Hungarian (C2)

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 github.com/NMAIResearch  Hugging Face

20

OPEN-ACCESS STUDIES

22

ZENODO DOIS (CC BY)

8

INTERACTIVE WEB TOOLS

10 Yrs

OPERATIONS & QA RIGOR

EXECUTIVE PROFILE

Empirical researcher and systems evaluator investigating where AI workflows, model confidence, and statutory disclosures fail. Published twenty open-access studies with runnable Python verification scripts and citable Zenodo datasets. Backed by ten years in operational process architecture, compliance auditing, and KPI-driven performance evaluation. BA in Business Management (2024).

FLAGSHIP EMPIRICAL RESEARCH & AUDITS

What Admits a Document to FineWeb-Edu

Data Curation Audit

Audited the quality classifier across 84M documents from 94 Common Crawl snapshots. Proved the threshold is a rounded integer (> 2.5), the classifier truncates at 510 tokens, and bfloat16 tie-breaking cut 458,461 documents by rounding parity.

[Live Tool](#) · [DOI 10.5281/zenodo.21740081](https://doi.org/10.5281/zenodo.21740081) · [HF Dataset](#)

The Model Is a Dependency (Open Weights)

Model Uncertainty

Tested token entropy on numeric extraction across 594 pinned local model calls against SEC XBRL ground truth. Free uncertainty signals caught 0 of 106 source misattributions, demonstrating that open weights alone do not equal auditability.

[Live Tool](#) · [DOI 10.5281/zenodo.21543579](https://doi.org/10.5281/zenodo.21543579) · [Source Code](#)

Public Evidence under Article 50 (EU AI Act)

Statutory Audit

First public empirical audit of 12 consumer AI products 4 days after Article 50 took effect. Mapped 11 statutory clauses to dated, motive-tagged provider artefacts, establishing an empirical baseline ahead of December marking deadlines.

[Live Tool](#) · [DOI 10.5281/zenodo.21819102](https://doi.org/10.5281/zenodo.21819102) · [Code & Data](#)

AI Infrastructure: Power & Water Footprint

Compute Economics

Rebuilt the Water Consumption Impact index across 10 facilities (closed-loop cooling shifts 92–95% of water burden to the grid); modelled PJM and UK grid queue connection attrition (~1 in 5 announced MW delivered).

[Water Tracker](#) · [DOI 21318960](https://doi.org/10.21318960) · [Grid Demand Tool](#)

The CEO Pay-vs-Delivery Scorecard

Executive Governance

Automated SEC EDGAR Pay-vs-Performance extraction across 495 S&P 500 issuers, separating granted from realised compensation against board targets and peer-relative returns.

[Scorecard Tool](#) · [DOI 20680108](https://doi.org/10.20680108) · [Source Code](#)

The AI Capital-Infrastructure Barbell

Capital Architecture

Reconstructed capex cycles across hyperscalers, quantifying the barbell distribution between high-margin frontier models and capital-heavy power/foundry suppliers.

[DOI 20541643](https://doi.org/10.20541643) · [Cost Watch Series](#)

CORE COMPETENCIES & TECHNICAL TOOLKIT

AI SYSTEMS & EVALS • LLM Evaluation Suites • Token Entropy Calibration • Agentic & MCP Workflows • Prompt Boundary Testing	GOVERNANCE & RISK • EU AI Act (Art. 50 Audits) • Model Risk Management • C2PA Content Provenance • ISO/IEC 42001 Concepts	DATA & ENGINEERING • Python stdlib Pipelines • SEC EDGAR / XBRL Parsing • Zero-Dependency Web Tools • Git / GitHub Actions	OPERATIONAL QA • 10 Yrs Process Architecture • 92% Compliance Audit Rating • Root-Cause Analysis • KPI Variance Tracking
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WORKING WITH AI SYSTEMS & CONTROLLED WORKFLOW

Human-in-the-Loop Validation & Division of Labour: Drafting and script scaffolding are model-assisted; choosing sources, checking load-bearing figures against primary SEC/regulatory filings, and error-bounding are conducted manually. Every publication discloses assisting models and conflicts of interest.

EXPERIENCE & LEADERSHIP

Operations Manager (Night), 329-room hotel, Manchester Cross-functional operational process design, compliance auditing, and senior overnight escalation lead. • Designed and implemented standard operating procedures and quality control metrics across departments. • Conducted compliance audits achieving 92% annual rating; senior overnight escalation lead (team rating 9.4/10). • Produced financial and operational variance reports, tracking performance against budget and forecast.	2022 – Present
Earlier Operations & Customer Operations (incl. Booking.com) Customer-facing operational roles, workflow optimisation, and process compliance.	2014 – 2022

EDUCATION & CREDENTIALS

BA (Hons) Business Management — Solent University Studied full-time alongside full-time operational management employment. Languages: English (C2 Proficient), Hungarian (C2 Proficient).	Graduated 2024
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