

Abhishek Jha

Engineering Leader & Applied ML Researcher — factual reliability of LLMs, historical text recognition, multilingual document AI

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· New Delhi, India (open to relocation)

ENGINEERING LEADERSHIP

Acting CTO at Vallora, Product Lead at 10xTA, and founder of MeritX — setting technical direction and leading engineering teams across three production platforms.

APPLIED RESEARCH

A locked 21-system HTR benchmark and trained specialist recognisers (7.8% CER), in collaboration with Transkribus (READ-COOP) and Uppsala University.

PRODUCTION ML AT SCALE

~6 years shipping systems on Azure, AWS and Kubernetes; a skill-graph engine over 2.5M+ questions, US patent pending and DPIIT-recognised.

Full-stack engineer with around six years building and shipping production systems and, over the last two years, **leading engineering teams**. My focus has moved into NLP, LLMs and document AI, alongside **independent research on historical text recognition** with measured results in cross-lingual transfer, factual reliability and data-efficient adaptation. I care about systems that are honest about their own limits: evaluation that reports the worst case, and models that refuse what they cannot support.

LEADERSHIP & ENGINEERING EXPERIENCE

Acting CTO & Lead Engineer — Vallora ApS, Copenhagen (remote)

Mar 2026 – present

Technical direction of a production legal-AI platform for Danish property law; leading the engineering team.

- Own the **technical direction and delivery** of the platform end to end, from architecture and roadmap to production releases across both staging and prod.
- **Run the team's delivery cadence:** daily stand-ups (scrum), sprint planning and backlog management in Jira, plus code review and mentoring.
- Built lawyer-style analysis agents over Danish legal documents (servitut / servitude analysis), with retrieval-augmented generation on pgvector and exact page-level citations.
- Engineered **factual reliability**: confidence gating that refuses to assert unsupported claims, plus determinism and cost instrumentation of the LLM pipeline.
- Stack: FastAPI, Celery, Next.js, Kubernetes, Supabase and PostgreSQL.

Product Lead — 10xTA, PGC Digital

2025 – present

Leading an AI recruitment product and a real-time AI interview system.

- Lead an **AI recruitment platform** (about 11 microservices, Azure, Kafka) and a real-time AI interview product with proctoring (YOLO / MediaPipe).
- Authored a measurement study, "*The Median Is Not the Experience*" (473 timed operations, 533 measurements), showing that median latency hides pathological tail waits.

Founder & Principal Engineer — MeritX Technologies, Delhi

2025 – present

Founded and built an AI hiring platform from zero.

- Built an AI hiring platform (17 microservices, AWS) and a **skill-graph engine** (2.5M+ questions, 19,000+ skills) with embedding-based adaptive selection.
- **US patent pending**; recognised by the Government of India (DPIIT).

Research-to-Product Consulting & Independent Products

2020 – 2024

- Carried applied-research prototypes through to shipped products for clients (PGC Digital, Nexgsol UK, INKREVENUE); built and sold two web products (over GBP 10,000 revenue).

Historical HTR Benchmark & Specialist Models

2025 – present

- Designed a **locked, 21-system benchmark** comparing frontier vision-language models (GPT, Gemini, Claude, Mistral) against specialist recognisers on unseen Danish and Swedish court hands (1778–2021). Paper in preparation (DHNB).
- **Key findings:** the best VLM reads about 55.6% of words versus 78% for the best specialist, and produces fluent but confidently wrong output; rankings swing up to 37 recall points on input resolution alone; segmentation is the dominant hidden error source.
- **Cross-lingual transfer:** a Danish model plus about 50 corrected Swedish lines approaches native accuracy; one corrected page per writer gives 15–35 points of gain (scribe-specific by control).
- **Models trained:** PyLaia CTC specialists for 18th- and 19th-century Danish (7.8% and 10.6% CER); a QLoRA fine-tune of Qwen2.5-VL (9.7% CER); YOLO line segmentation (mAP50 0.79).
- **Extended to Modi,** a historical Indic script: frontier VLMs are largely unreadable (median 0.84 CER) while a fine-tuned small VLM on the MoDeTrans corpus reaches usable accuracy (with the CVIT group, IIIT Hyderabad).
- **Data:** assembled a 596k-line Danish corpus (Aarhus City Archives, DIEM, NorHand) and 217k lines of 18th-century ground truth; released 160k synthetic lines on Hugging Face; locked protocol on four unseen documents.
- **Collaborations:** Dr. Andy Stauder (co-founder, READ-COOP / Transkribus), Prof. Anders Hast (Uppsala), Dr. D. Dannells (Gothenburg), and the CVIT group (IIIT Hyderabad).

EDUCATION

MSc Computer Science

Birmingham City University, United Kingdom · 2022 – 2023

Thesis: an AI-based recruitment system. Strongest modules: Web Application Development (70), Research Methods (61). Degree awarded October 2023.

B.Tech, Electronics & Communication Engineering

GGS Indraprastha University, Delhi · 2017 – 2021

First Division (69%). Foundations in signal processing, mathematics and programming.

PUBLICATIONS & DATASETS

- **Papers in preparation:** the 21-system HTR benchmark (with READ-COOP / Transkribus) and a Swedish cross-lingual study (with Uppsala), targeting DHNB and IJDAR / ICDAR 2027.
- **Preprints** (Authorea / Google Scholar): "The Median Is Not the Experience", "Node.js vs Django", "ProgramPanda".
- **Dataset:** 160k synthetic Danish HTR lines released publicly on Hugging Face (hf.co/abhishekjha1008).
- **US patent pending** (skill-graph engine).

TECHNICAL SKILLS

ML / NLP: PyTorch, multilingual LLMs, RAG and embeddings (pgvector), CTC recognisers (PyLaia), VLM fine-tuning (QLoRA), YOLO segmentation, evaluation design (CER / WER), synthetic data.

Engineering: Python, TypeScript, Node.js, FastAPI, React / Next.js, PostgreSQL, Celery, Kafka, Kubernetes, Azure / AWS, Git.

Leadership & delivery: technical direction, team leadership, Agile / Scrum (daily stand-ups, sprint planning), Jira, code review, mentoring, hiring, roadmap and delivery, stakeholder management, research-to-product translation.

Languages: English, Hindi.