

Nicolas Ha

Senior freelance software engineer

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Right to work: EU (French), UK (British)

SUMMARY

Senior freelance software engineer, 12+ years, now building AI systems: small specialized AI models, agentic orchestration and workflows, RAG, MCP tooling, agent memory.
References: Griffin Bank, MailOnline.

I have led a backend team on a pipeline serving 1.3B views a month, helped stand up new teams inside a bank going for its licence. I have shipped several products from 0 to 1, the latest Klar, an AI spam filter for Apple Mail.

EXPERIENCE

Founder & Lead AI Engineer

Klar (klar.im), Remote, France | 01/2026 – Present

In production on the App Store: on-device, privacy-preserving spam filter for Apple Mail.

- Trained the classifier in Python: a four-class head on a frozen XLM-RoBERTa encoder, quantised to run on the Mac's own GPU in under 50ms a message, with no network access.
- Built the C++17 engine it runs on (llama.cpp/GGML) behind a stable C API, with Node and Swift bindings, a Postfix milter and Docker end-to-end tests.
- AI tooling: custom memory and retrieval (MCP, LangChain, RAG, agent hooks and skills).

Staff developer

Narval (GM NFT), Paris, France | 06/2025 – 12/2025

Joined a company of 4 as an early engineer, before any product existed.

- Built custodian integrations (BitGo, Zodia) enabling institutional custodians to access DeFi (Aave staking, TON transactions), with GNAP/OAuth authn/authz on an OPA policy engine.
- Built transaction decoding/proxy infrastructure for on-chain transaction validation (EIP-7730).

Senior software engineer

Griffin Bank (BaaS), London, United Kingdom | 04/2022 – 06/2025

Built platform components a UK banking licence depended on, in a heavily regulated environment.

- Led several new platform initiatives end-to-end, and helped build out new engineering teams as the org scaled toward its licence.
- Implemented secure admin authorization, a webhooks architecture, and passkey-based multi-factor authentication.
- Designed the queuing and processing systems, audit logging, scheduled-job infrastructure, and HTTP message signing behind it.

Independent Developer

TurtleQueue (SaaS), London, United Kingdom | 09/2019 – 04/2022

Led development of TurtleQueue, a message broker SaaS platform compatible with Apache Pulsar and Apache Kafka.

- Took the product 0-to-1: designed and built the entire technology stack from scratch; secured R&D tax incentives.
- Built a proxy speaking the Apache Kafka and Apache Pulsar wire protocols, so existing client applications connected without changes.
- Hired and led a small team of contractor engineers to scale delivery.
- Ran freelance contract engineering for MailOnline in parallel.

Backend team lead software engineer
MailOnline (Media), London, United Kingdom | 08/2016 – 07/2019

Promoted from Senior Engineer to Backend Team Lead, managing a team of experienced developers.

- Architected and scaled the core publishing pipeline to 1.3B views a month.
- Implemented ad placement that increased revenue; delivered real-time analytics that reduced feedback cycles.

Software engineer
Go Find It (Startup mobile apps), Paris, France | 05/2015 – 04/2016

Built a full-stack mobile CMS for luxury hotels.

- Ran the pipeline from development through DevOps to App Store publishing for a team of 10 mobile developers, with Python SSH deployment tooling.

Software engineer
Apizee (Startup web telecommunications), Lannion, France | 03/2014 – 05/2015

First backend engineer hire.

- Took a prototype 0-to-1: connectors bridging WebRTC customers with legacy phone systems (Alcatel-Lucent SIP IMS, RCS), and the measurement tooling for Orange Labs that won a multi-year contract with Orange.
- Technology demoed at Mobile World Congress Barcelona, on HP's booth.

Intern
Siléane (Robotics SMB), France | 2012

- Prototyped 0-to-1 a controller for a Fanuc industrial robotic arm driven by Microsoft Kinect vision, so non-technical users could program movement paths by gesture.

Intern
Dassault Aviation (equipments division), France | 2010

- Developed an automated debugging bench to stress-test military avionics flight-control circuit boards, enabling 24-hour testing cycles that cut testing time by 50%.

SKILLS

AGENTIC AI & LLM SYSTEMS	LangChain / LangGraph | MCP servers and tools | RAG and hybrid search | Agent memory | Multi-agent workflows | Agent evaluation and benchmarking | Embeddings and local inference (ONNX, llama.cpp) | Vector search
LEADERSHIP	Technical leadership | Leading and mentoring engineers | Standing up new teams | Hiring and running contractors | Architecture ownership
PROGRAMMING LANGUAGES	Python | C++ | Clojure | TypeScript | JavaScript
PLATFORMS & INFRASTRUCTURE	Node.js | React | Docker | Kubernetes | AWS | CI/CD | Git/GitLab
DATA & MESSAGING	PostgreSQL | Redis | SQLite | FoundationDB | ElasticSearch | MongoDB | Kafka | Pulsar | RabbitMQ
HOW I WORK	Benchmark-driven iteration | Scalable, reliable production systems | Testing (unit, integration, e2e, generative)

EDUCATION

Master's degree in computer science
ENSSAT, Lannion, France | 2011 – 2014

Student representative. Erasmus exchange in Germany, with classes taught in German.

Bachelor of Engineering in Electronic and Computer Engineering
Edinburgh Napier University, Edinburgh, United Kingdom | 2010 – 2011

Coursework included C, embedded/real-time systems design, and state machines.

LANGUAGES

French (Native) | English