



Nicolas Ha

Place of birth: Nantes, France

Nationality: French, British

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ABOUT ME

Senior software engineer, 12+ years, now doing hands-on modern C++ systems work.

Built banking-grade auth/authz systems and resilient infrastructure processing millions in transactions, in regulated environments.

Since early 2026, founder and sole engineer of Klar: a ~24,000-line C++17 inference engine, where reading and structuring a codebase from zero, debugging, and performance work are the day-to-day.

SKILLS

JavaScript | TypeScript | Clojure | React.js | Node.js | Kubernetes | Docker

SYSTEMS / C++

C++17 | CMake | RAII / modern memory management | C ABI / multi-language FFI (Node N-API, Swift) | Debugging & performance profiling | ML inference (GGML / llama.cpp) | OpenCV | Git/GitLab

DATABASES

PostgreSQL | Redis | FoundationDB | Elasticsearch | MongoDB

MESSAGE QUEUES

Apache Pulsar | Apache Kafka | RabbitMQ

ENGINEERING

Testing (unit, integration, e2e, generative)

DEVOPS

CI/CD | AWS

WORK EXPERIENCE

France

Independent developer

01/01/2026 - Current

On-device, privacy-preserving spam-detection engine (klar.im), built from scratch.

- Built a ~24k-line C++17 inference engine (CMake, RAII/smart-pointer discipline, unit-tested) embedding llama.cpp/GGML to run a multilingual transformer (XLM-RoBERTa) classifier fully on-device.
- Exposed a stable C ABI so the engine can be embedded from other languages; shipped Node.js (N-API) and Swift bindings on top of it.
- Added RFC822/MIME parsing, a rule-based decision layer, PII scrubbing, and URL-blocklist checks around the core classifier.
- Shipped on-device incremental training, a reference Postfix milter, and a Docker-based end-to-end test stack.

Narval (GM NFT) Paris, France

Staff developer

06/2025 - 12/2025

Joined as early engineer (team of 4) when no product existed.

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

Griffin Bank (BaaS) London, United Kingdom

Senior software engineer

04/2022 - 05/2025

Engineered critical platform components essential for banking license approval in a highly regulated financial environment.

- Implemented secure admin authorization systems
- Developed robust webhooks architecture
- Built multi-factor authentication using passkeys
- Designed resilient queuing and processing systems
- Created comprehensive audit logging
- Established reliable scheduled job infrastructure
- Implemented secure HTTP message signatures for API integrity

TurtleQueue (SaaS) [London, United Kingdom](#)

Independent Developer

2019 - 2022

Led development of TurtleQueue, a Pulsar-compatible message broker SaaS platform.

- Designed and built entire technology stack from scratch
- Gained expertise in distributed systems and cloud infrastructure
- Successfully secured R&D tax incentives
- Provided specialized freelance engineering services for MailOnline

MailOnline (Media) [London, United Kingdom](#)

Backend team lead software engineer

2016 - 2019

Advanced from Senior Engineer to Backend Team Lead managing highly experienced developers.

- Architected and optimized core publishing pipeline serving 1.3B views monthly
- Inherited a large, years-old publishing-pipeline codebase running under constant production traffic. Diagnosed and fixed the architecture and performance issues that mattered most, without doing a full rewrite
- Implemented ad placement that increased revenue
- Delivered real-time analytics that significantly reduced feedback cycles
- Accelerated feature delivery while maintaining system reliability at scale

Go Find It (Startup mobile apps) [France](#)

Software engineer

2015 - 2016

Built comprehensive full-stack mobile CMS for luxury hotels.

- Enabled real-time content management and live app previewing
- Managed entire pipeline from development to DevOps and App Store publishing
- Supported team of 10 mobile developers to deliver hundreds of branded hotel apps

Apizee (Startup web telecommunications) [France](#)

Software engineer

2014 - 2014

First backend engineer hire.

- Proactively developed a prototype that secured a multi-year contract with Orange
- Developed connectors bridging WebRTC web customers with legacy phone support systems
- Technology showcased at Barcelona Mobile World Congress on HP's booth

Siléane (Robotics SMB) [France](#)

Intern

2012 - 2012

Built a robotic-arm controller driven by Microsoft Kinect.

- Built the OpenCV-based vision pipeline that read hand gestures from the Kinect feed
- Let non-technical users program movement paths by gesture instead of manual joint-by-joint configuration, cutting programming time

● **Dassault Aviation (equipments division)** France

Intern

2010 - 2010

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

EDUCATION & TRAINING

● **2011 - 2014** Lannion, France

● **Master's degree in computer science** ENSSAT

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

2010 - 2011 Edinburgh, United Kingdom

● **Bachelor of Engineering in Electronic and Computer Engineering** Edinburgh Napier University

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

2008 - 2010 Annecy-le-Vieux, France

● **DUT Génie Électrique et Informatique Industrielle (GEII)** IUT Annecy-le-Vieux

Coursework included analog and digital electronics, and industrial computing.

LANGUAGE SKILLS

MOTHER TONGUE(S): French

OTHER LANGUAGE(S): English