

THIBAUT GUERRAND

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Nantes, France | Relocating to New Jersey, USA (May 2027)

J-1 visa candidate, does not require sponsorship — Available May–Aug 2027, 12 weeks

EDUCATION

IMT Atlantique – *French grande école of engineering* Nantes, France
Master of Science in Engineering - Digital Transformation of Industrial Systems Sept. 2025 – Present
– **Cumulative GPA: 3.88/4.00** – Ranked 1st in cohort (Semesters 1–2: 3.82 and 3.93).

University of Le Havre Le Havre, France
Bachelor of Science in Electrical Engineering and Industrial Computing Sept. 2022 – June 2025
– Ranked 1st in class for three consecutive years; graduated with highest distinction.

EXPERIENCE

Thales SIX Cholet, France
Engineering Co-op - Digital Transformation Sept. 2025 – Present

- **Full-Stack Development:** Built a Hardware Lifecycle Management web application (Angular frontend, NestJS backend, REST API, TypeScript) used daily to track equipment reception, dismantling and end-of-life processing.
- **AI Integration:** Researched and documented the deployment of local Large Language Models (Gemma 3n) within the Headlight Suite framework, exploring OS-level enrollment on Windows and Android.
- **Troubleshooting & QA:** Diagnosed an environment-specific certificate deployment failure by scripting execution-trace extraction; ran QA on internal applications and analyzed user telemetry.
- **Technical Onboarding:** Produced bilingual onboarding video tutorials and documentation, reducing repeat questions to the support team.

SNEF Group Le Havre, France
Automation Engineering Co-op | Assistant Project Manager Aug. 2023 – Sept. 2025

- **DALI Control Suitcase:** Designed and built a portable test unit (Wago PLC, DALI master card, custom HMI) letting electricians verify installation compliance without an automation engineer – **cut commissioning time by at least 50%**. Received the **SNEF 2024 Technological Innovation Award**.
- **Sanofi "Project Mirage":** Engineered and deployed a complete PLC and HMI system for Sanofi's manufacturing site (Le Trait, France), passing pharmaceutical GMP validation with zero defects.
- **Industrial Systems Integration:** Deployed a network of 13 interconnected PLCs across the University of Le Havre campus (Modbus RTU/TCP, LoRa); delivered automation architectures and technical documentation for clients including **Lubrizol** and **Transdev**.
- **Project Management & Pre-sales:** Led technical proposals and cost estimations on projects budgeted in the tens of thousands of euros, coordinating on-site interventions to meet delivery deadlines.

PROJECTS

Outwin – RAG Portfolio Assistant | thibault-guerrand.com 2026

- Designed and deployed a retrieval-augmented generation system in production (FastAPI, Next.js, ChromaDB, Docker on Fly.io / Vercel): hybrid retrieval combining vector search and BM25 with reciprocal-rank fusion, followed by cross-encoder reranking.
- Built an evaluation harness (Ragas) over a 43-question reference set to calibrate the relevance threshold and measure faithfulness and retrieval recall; shipped input/output guardrails, rate limiting and a daily cost cap with no measured loss in answer recall.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, SQL
Web & Backend: FastAPI, NestJS, Angular, Next.js, REST APIs
AI & Data: RAG pipelines, LangChain, vector databases (ChromaDB), local LLM deployment, evaluation harnesses
DevOps: Docker, Git, GitLab CI/CD, Linux
Industrial: PLC programming (Siemens, Wago, Phoenix Contact), TIA Portal, Codesys, Modbus RTU/TCP, HMI design
Spoken: French (Native), English (Professional Working Proficiency), Spanish (Basic)